

KEEPING YOUNG
AND WELL

GEORGE W. BACON, F.R.G.S.

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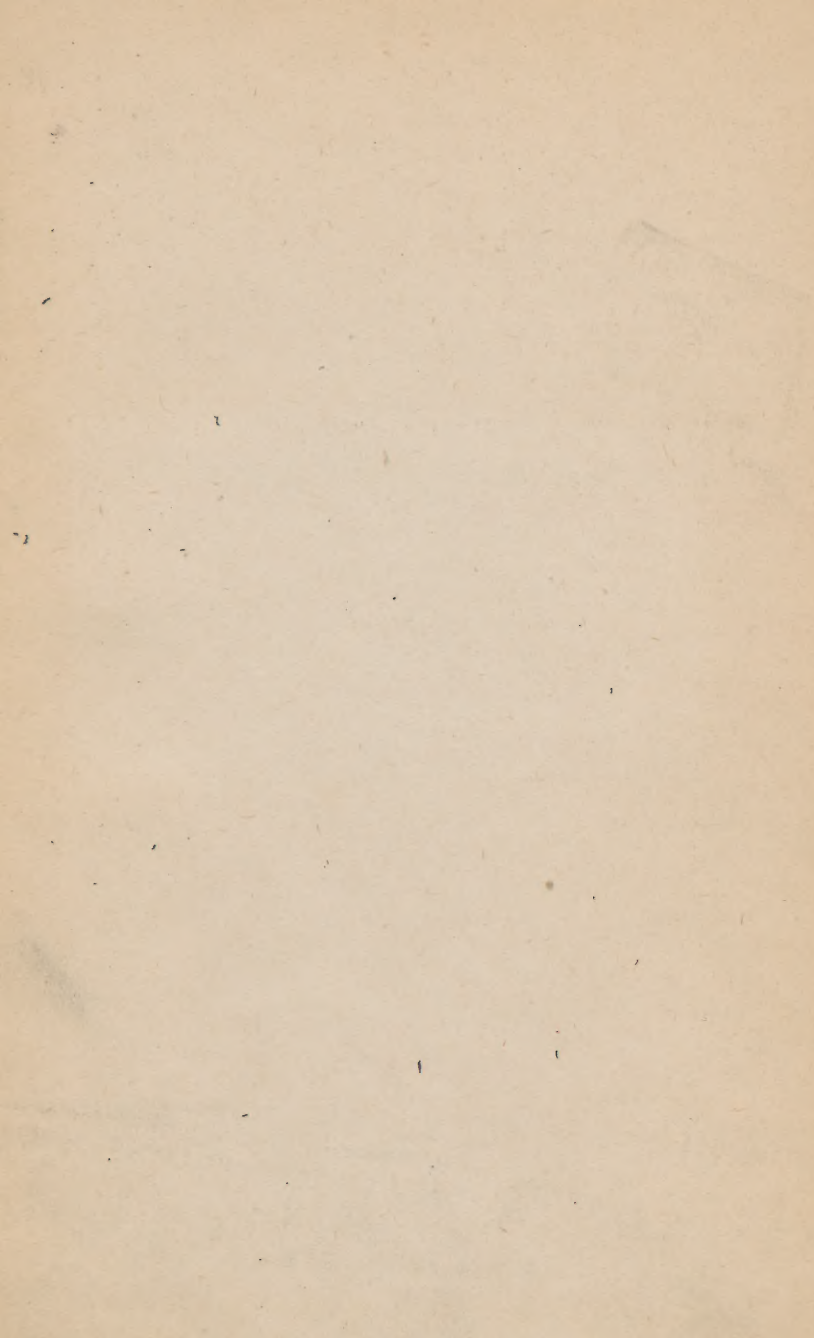
ANNEX

Section

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Keeping Young and Well

KEEPING YOUNG AND WELL

BY
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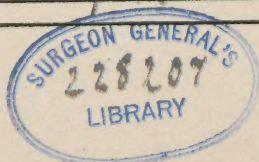
ANNOTATED BY
W. T. FERNIE, M.D.

"Of all bequests, from parents to children, the most valuable is a Sound Constitution, which may be fitly compared to an Entailed Estate, and one's bounden Duty to posterity is to pass on that Estate Uninjured, if not improved."
HERBERT SPENCER.



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PREFACE

The possession of Sound Health being man's normal state, the opposite condition shows that either we or our progenitors have not lived under the most favorable conditions; still, with a proper observance of the Laws of Life, good health should be within the reach of most people.

The Author began, in early life, the study of the principles of Personal Hygiene, and has continued to put the results into practise; so that after many years of a strenuous life, in England, as an editor and publisher, and having passed fourscore years, he finds his health still unimpaired, with the roadway always a pleasant one and requiring but little thought for Sound Health to be maintained.

The intention throughout has been to spare no pains or research in order to fill the book with valuable matter, making it a maximum of utility with a minimum of words — the largest amount of personal hygiene that can be got into a given space.

With the benefit of his long study of personal hygiene and the life-long practise of what is here-

in preached (which includes *total abstinence* and moderation in all things), he feels qualified, with the aid of expert medical advice, to deal with this important subject. He trusts the work will find favor, and prove helpful to those who believe, with Emerson, that "the first Wealth is Health," and thus also assist the reader in Keeping Young and Well.

With the detailed contents pages, and with the principal chapters in alphabetical order, a special index is rendered unnecessary.

Indebtedness must be expressed to the various American and British publishers for permission to quote from their medical and health publications.

G. W. BACON

CONTENTS

CHAPTER	PAGE
PREFACE	9
INTRODUCTION	11
Preventable diseases more destructive than War — Health of the People, a Nation's greatest asset.	
I. HEALTH HINTS FOR THE HOME	13
Maxim by Sir Benj. Richardson — Health above Gold — Herbert Spencer's View — Delusion versus Wisdom — Lincoln's health maxims — The Clinical Thermometer — The Flesh-Brush, and its uses — Fifteen (avoidable) causes of illness — CHILDHOOD AILMENTS. The Brain — Headaches — The Teeth — Wrong Feeding — Obedience — Kind Words.	
II. BODILY ORGANS AND THEIR FUNCTIONS .	19
The principal bodily organs described — The blood and its circulation — Exchanging new materials for waste products — The Nervous System.	
III. OUR FOOD, AND ERRORS IN DIET	27
Maxim by Cornaro — Foods classified — Food promotes warmth — Overeating — Fletcherism — Thorough mastication of food — Admiral Dewey's habit — Four harmful errors in eating — Less flesh foods required — Prof. Chittenden's experiments.	
IV. THE DRINK HABIT.—RELIABLE REMEDIES	33
Maxims by Horace Mann and George Eliot — Remedies for the Drink habit — Kellogg's, Jackson's, and Booth's experiences — Abstinence from flesh foods during treatment — Free use of sweets — Governments supply sweets to the soldiers — Delusion respecting stimulants — Special causes of the craving — Undermining constitution — Degenerate offspring — Suicide by instalments — American Delegates' report — Cigarette Smoking — Cocaine habit.	

CHAPTER

PAGE

V. LIGHT, PURE AIR AND VENTILATION . . . 39

Maxims by Lord Derby and Dr. Blackie — Light the friend of life (Hufeland) — Darkened rooms tend to disease — Faded carpets versus faded cheeks — Sunlight, the world's greatest disinfectant — High death-rate from want of ventilation (Dr. Lister) — Evils of overheated rooms — Experiences of the benefits of outdoor life — Pure air, indoors and out, ensures freedom from colds — Overheated rooms — Value of open air.

VI. RESPIRATION AND DEEP BREATHING . . 44

Maxim by Niemeier — Proper oxygenation of the blood, essential — Indoor workers require more special outdoor breathing — All organs and blood vessels highly benefited by deep breathing — Caution for the delicate — The lost art of special breathing, now little practised — Shallow breathing habits easily overcome — Long practise of deep breathing expands lungs — Dread of fresh air by those who most need it.

VII. CHEERFULNESS AND HAPPINESS 47

Maxims by Shakespeare, Carlyle, and Talmage — Cheerfulness and the nervous system — Its effect on health and vigor — R. L. Stevenson's tribute to the cheerful — Quicker recovery from illness — Benefits of laughter — Verdicts of Washington Irving, Haliburton, Horace, Dickens — A contented mind confers happiness — An art in promoting happiness — How to promote.

VIII. EXERCISE AND REST 51

Maxim by Lord Derby — The human machine should be kept in use — Every muscle should share in exercise and rest — Injury from competition in muscular feats — Harm from working fatigued muscles (Masso) — Upkeep of the "Strong Man's" muscles a strain on his vitality — Removal of waste products by exercise — Over-rest more frequent than over-exercise — Von Moltke, and his habits at 90 — Herbert Spencer on playful exercise — Daily outdoor exercise inval-

uable — Want of rest, after much fatigue, causes wasting — One or two hours' exercise daily — Mental rest for brain-workers — Indoor exercise.

IX. SOUND SLEEP AND ITS BENEFITS 56

Maxim by Menander — Proper Sleep tends to remove waste products — Too little sleep for children doubly harmful — Sleep induced by heavy meal little benefit — Digestion retarded by too profound sleep — A starved brain too active for proper sleep — An enviable sleeper! — Emanuel Kant on oversleeping — Recharging the battery — Sleep from drugs, "a dangerous counterfeit" — Avoid active brain-work before bedtime — Loss of sleep retards waste products — How to promote sleep.

X. VITAL ENERGY — CONSERVED OR WASTED 60

Maxims by Emerson and Goethe — Conserve energy — Nervous breakdown, how to avoid — Too much earnest talking saps vital energy — Our limited income of nerve force — Expenditure must not exceed capital — Mental fatigue not relieved by muscular exercise — Anger and Worry cause Fatigue — Worry prevents repair of waste — Dr. Granville's comparison of the two sides of life.

XI. A LONG AND HEALTHY LIFE 65

Maxims by Lord Bacon and Dante — Cornaro's experience — U. S. Government and old people — Dr. Davis on their habits — Sir H. Weber's report on habits of 100 aged people — 17 famous men who did good work in old age — Active brains no impairment of qualities — Changes incidental to Old Age.

XII. FIFTY MAXIMS AND RULES FOR THE AGED 72

Maxim by Cicero — 50 Special Rules, Hints and Maxims (alphabetical) — Quotations from Abernethy, Bacon, Beecher, Cicero, Cornaro, Fletcher, O. W. Holmes, Metchnikoff, Shakespeare, Longfellow, Plunkett, Virchow, Weber, etc.

CHAPTER	PAGE
XIII. COLDS: CAUSES, PREVENTION, REMEDIES .	75
Maxim — Colds the cause of half our disease —	
No common ailment more serious — Danger of	
sudden warmth when one is chilled — Special	
advice on bathing for the delicate — Simple	
Home Remedies — Vital reasons for prevention.	
XIV. ONE HUNDRED AILMENTS — CAUSE, PRE- VENTION AND HOME REMEDIES. — BY A MEDICAL MAN	86
Maxim, "Prevention better than cure" —	
Battle-Creek experience — 100 Diseases described	
— With their causes, prevention, and home	
treatment.	
XV. OUR FOODS AND THEIR MEDICINAL VALUES	151
Quotation from <i>The Lancet</i> on curative properties	
of Foods — Elements of the human body — The	
needed mineral ingredients best taken in our	
foods — Food values specified — Too much pro-	
teid tends to harden the arteries.	
XVI. MEDICAL GLOSSARY	173
150 Medical terms defined.	

INTRODUCTION

A hopeful sign of the times is the general interest manifested in the important question of Health, especially in this twentieth century. We now know of the valuable discoveries of germ-life, and their wide effects upon our manner of living. It seems also to be fully realized that the health and vigorous life of the people is *a nation's greatest asset*. But still there is need to advocate rational care in the prevention of disease, and in promoting general health.

These pages will serve to show how numerous are the medical and other experts, in various countries, who are giving us the benefit of their acquired wisdom, on this vital subject, and also the striking uniformity of opinion respecting the same.

We all have a horror of wars, and the enormous loss of life thereby involved, but we seem inclined to shut our eyes, with apathy, when told that preventable diseases are answerable for many thousands of adult lives every year, and also for the colossal waste of infant life.

In the case of wars, however, they afford some set-off in the thought that the sacrifice is on behalf of one's country; but this set-off is wholly wanting in respect to self-inflicted or preventable diseases.

Keeping Young and Well

CHAPTER I

HEALTH HINTS FOR THE HOME

"Without Health life is a burden. With Health it is a joy and gladness." — LONGFELLOW.

"The message of the Physician of to-day to humanity is, 'You would not need me to cure you if you would learn, by a few simple rules, how to keep yourselves well — rules simple when they are learned and a source of unknown Happiness when practised.'" — SIR BENJ. RICHARDSON, M.D.

Sound Health is the condition of being whole and "the harmonious adaptation of the body to its surroundings." All the organs must be in good working order, and all processes be working freely, by which each organ, and every part, gives and takes from the food which we eat just so much as is necessary for the perfect working. As Sir Wm. Temple has defined it, "Health is the Soul that animates all the enjoyments of life, and which fade and are tasteless without it."

The words "Health" and "Holiness" come from the same Anglo-Saxon root; thus indicat-

ing that our forefathers recognized health as the outcome of right living. But the watchword of the present age seems to be **Pleasure**. It is, however, clear that the pursuit of pleasure does not achieve happiness, and that the full indulgence of our desires does not give us "The great earthly blessing" — "Health."

Perfect Health Above Gold: If we could but realize the truth of the words of Solomon, that "Perfect Health is above Gold, and a sound body before all riches"; or those of Herbert Spencer, that "Vigorous Health and its accompanying high spirits are larger elements of Happiness than any other things whatsoever"; even those in the enjoyment of Sound Health might clearly see that such a treasure is worth more careful preservation.

"He who fears to limit himself to what is needed to keep his body in health, lest he should thus lose some of life's pleasures, is a *deluded man*. He who trusts to the health of his body and mind for his pleasures of life is the wisest of the wise." — Sir BENJ. RICHARDSON, M.D.

Abraham Lincoln's principal Health Maxims were: "Don't worry — Eat only three meals a day — Keep your digestion good by proper feeding — Take plenty of exercise — Go slowly and easily."

Fifteen Avoidable Causes of Illness: Errors in diet — Too much meat — Excess of stimulants — Loss of sleep — Neglecting colds — Wasting vital force — Wrong breathing — Overheated rooms — Lack of ventilation — Dread of fresh air — Want of light in living-rooms — Neglecting the skin — Lack of exercise — Want of rest for brain and stomach — Naked limbs of children — All these causes of illness are fully dealt with, in the following chapters.

A Clinical Thermometer should always be at hand, for use in cases of any supposed attack of acute disease. A temperature above the normal (98.4° F.) will give cause for concern.

The Flesh-Brush: *The Lancet* says: "When the flesh-brush is employed by the patient himself to the body, it improves the tone of the muscular system by stimulation of the skin, removes effete epidermic scales, and is of service in Corpulency, Indigestion, Muscular Rheumatism, and stiffness of Muscles." Its general use is, in fact, invaluable for most chronic complaints, strengthening the digestive organs and tending to promote general health and length of days. In the absence of a flesh-brush, rough Turkish gloves will serve a fairly good purpose. The best times for using the brush are in the early morning and at nights when the stomach

is comparatively empty, and for at least fifteen minutes, or even half an hour, in case of stiff joints. For indigestion its use, briskly and lightly, for ten minutes over the sternum or breast-bone, morning and night, will prove of great benefit, if persevered with, for a few weeks. Friction thus employed daily to the spine is also highly recommended for nervousness, but spinal friction, though brisk, must be applied with *very gentle pressure* upon the *spine*. Dr. George Black ("*The Doctor at Home*") says: "Friction to the skin, with the flesh-brush, is of inestimable value; it aids the circulation, strengthens the digestive organs, is of great service to the gouty, the rheumatic, the paralytic and the nervous. It also promotes the growth and general well-being of children."

CHILDHOOD

A being scarcely formed or moulded,

A rose with all its sweetest leaves still folded. — BYRON

The Brain: The child's brain should never be overtaxed. This is often done unwittingly by the parent's desire to show off the smartness of the child, whereas all precocity should be discouraged. Children who sleep in airy rooms, with much daily outing, will grow up much

stronger than those who are compelled to inhale impure air, day or night. (See Chapter V.)

Headaches in a child, when they do not pass off after a little rest, should be regarded with suspicion and should not be neglected, as they may be the herald of some approaching brain disease.

The Teeth: Children's teeth, the first set in particular, are too often neglected. They should be brushed daily and especially at bedtime. When loose they should be carefully kept in their places, as the premature loss of a "milk tooth" causes the jaw to contract, and the permanent teeth to be cut in an irregular manner. A child should therefore never put anything in its mouth in a way that will tend to loosen a tooth.

Wrong Feeding: Most infantile illnesses come from improper food or wrong feeding. An exclusive milk diet, for the first six or nine months (even when hand-fed), would greatly lower the rate of infant mortality. It is a great mistake to feed a child often just to keep it quiet. He far more often cries from too frequent feeding. *Sugar* promotes the health and growth of children; but in excess (and especially from sweets between meals) it causes stomach troubles, which result in other illnesses and in decayed teeth. The foundation of a

sound constitution is mainly laid, or marred, during the period of growth.

Obedience: The fewest possible words, firmly but kindly spoken (and repeated verbatim if required), will secure more prompt obedience than any amount of harshness and vain threats. This plan is the greatest secret of child management. Besides, to give frequent commands to a child, which he knows you do not intend to enforce, only encourages disobedience and makes tenfold more work for the one who has charge of the child.

Unkindness and impatience only tend to alienate. Children who hear harsh words and quarreling easily acquire such habits. But where peace and calmness prevail, these qualities are acquired. "A child may forget what he hears you say, but does not forget what he sees you do."

Kind words will fill the little heart with joy and pride;
It is a sad and cruel thing that these should be denied;
And yet how many weary hours those joyous beings know,
How much of sadness and restraint they to their elders owe.
We over-teach, we over-task, we check and we confine;
We set the heart too soon at work, to learn our narrow line.
Only trained by love to love is childhood's normal task;
Affection, gentleness and love are all its brief years ask.

CHAPTER II

PRINCIPAL ORGANS OF THE BODY

*"What a piece of work is man,
In form and moulding how express and admirable."*

— HAMLET

There is no more complicated piece of machinery in the world than the human body; and as every one has to run so complex a machine he ought to know something about it, especially as he personally has to pay the penalty for any careless blundering.

The Body is a vast aggregate of Bones, Units, or Cells, variously modified and joined together in complex groups which serve different purposes, but all working together to the common end — animal life, and all deriving their substance and nourishment from food and water.

The Skin or external covering of the body is an important organ of somewhat complex structure — serving as a channel of excretion by sweat glands embedded in it, whereby some of the waste products of the body are got rid of, and modified locally as the hair and nails. It is amply supplied with blood and is sensi-

tive to heat and cold, and is the special seat of the sense of touch.

The Heart, and Circulation of the Blood: By the action of the heart, with its four cavities (two auricles and two ventricles), the blood is pumped to the lungs and made to travel thence throughout the whole system of veins, arteries and capillaries, exchanging waste products (the ashes of life) for new materials. This exchange takes place mostly through the porous walls of the hair-like *Capillaries*, which connect the arteries with the veins. Without this constant interchange life is impossible. The blood from the veins (dark blue) passes to the heart, thence to the lungs, where it takes up oxygen from the inhaled air: and at the same time parts with its poisonous carbonic acid, and is thus purified, and becomes a bright scarlet, and ready for another circular journey, by way of the arteries and back again through the veins, making about three pulsations for each inhalation.

The Serum: The liquid part of the blood, which is carried into the blood by the Lymphatic vessels.

The Corpuscles (white and red): Very minute globular bodies — the millions of red ones give color to the blood.

The Skeleton: The bony framework which supports the soft organs of the body and gives points of attachment to muscles and the resistance necessary to produce movements. It is of cartilage or gristle, in the early stages of growth, and the infant is unable to support its weight until, by the gradual deposit of mineral salts, the cartilage is transformed into the skeleton. The central and principal part of the skeleton is the *Spine* or vertebral column, one end of which, the *Skull*, may be considered as an enlargement or prolongation. The bony part consists of 33 separate pieces or vertebræ. The *Shoulder girdle* of the bony part (*Scapula* or shoulder-blade and *Clavicle* or collar-bone, on each side) supports the arms and hands; and the *Pelvis*, attached at the lower end of the spine, supports the legs and feet. The *Ribs* and *Breast-bone*, surrounding the thorax, or chest, are attached to the spinal column.

The Lymphatics: A system of tubes or vessels resembling the veins, and spreading over a great part of the body. They provide for the circulation of the *Lymph* — a special fluid which bathes many tissues of the body, and finally pours it into the blood, before it re-enters the heart.

The Alimentary Canal or Tract is the name

of the tube which passes through the body and which is concerned with the digestion and assimilation of food. It is formed by a folding in of the outer skin till a continuous tube is formed; the modified skin which lines it is called the *Mucous Membrane*. This modification is seen at the lips, although the lips, mouth, gullet, stomach, and the intestines form the Canal itself.

The Brain: The seat of direction, control and the co-ordination of movements and other functions; it is practically divided into two similar parts. It is essentially a mass of white fibrous nervous tissue, covered by a thin layer of gray nervous matter and containing also a large number of nerve *cells*; it is this gray matter which exercises all the higher nerve functions.

The Palate: The roof of the mouth, with its extension backwards and downwards as the Uvula or soft palate, almost to the opening of the gullet or œsophagus.

The Larynx: That part of the throat at the top of the windpipe or trachea, containing the vocal chords and the complex cartilages connected with them and their movements and tension.

The Windpipe: The tube of stiff cartilage by which air passes to the lungs. The lower part

within the thoracic cavity is the *Bronchus*, which divides into the two *bronchial tubes*, one going to each lung.

The Chest (thorax) is the upper part of the trunk, between the neck and the abdomen. Its walls are supported by the spine, the ribs, and the breast-bone. It contains the heart, the lungs, the gullet, and other structures.

The Lungs: The large sponge-like masses which fill the chest, consisting essentially of a system of branching tubes opening from the windpipe, into all of which air is drawn when we inspire. The exchange of carbonic acid in the venous blood for the oxygen of the air is the essential process of respiration.

The Diaphragm is the fibrous and muscular membrane dividing the trunk into two chambers, viz: — the Chest or *Thorax* and the *Abdomen*. It is concerned in respiration as it causes alternate enlargement (downwards) and contraction of the cavity of the lungs, helping the inspiration and expiration of air.

The Abdomen: The part of the trunk below the chest, and separated from it by the diaphragm. It contains the liver, the stomach, the kidneys, the bladder, the small and large intestine, and other structures.

The Liver is situated in the upper part of the

abdomen on the right side, just below the ribs. It is the largest gland organ of the body and one of the most important, in serving the function of life and preserving the balance on which health depends. It is in the Liver that bile is secreted — a bitter alkaline fluid, purifying the blood and helpful in digestion. The bile passes from the liver to the gall-bladder and thence by the Bile-duct into the intestine. The healthful action of the liver is essential to both mental and bodily health, since the purity of the blood largely depends on the proper action of the liver, and when this fails in its action impure blood is distributed throughout the whole system, injuriously affecting the action of every other organ, including the brain, and causing the usual biliousness, and depression of spirits.

The Kidneys are the organs which excrete the urine, and from which the urine is continually passing into the bladder. They are embedded in fat on each side of the spine.

The Intestines, Small and Large: The Small intestine is about 20 feet in length. Starting from the stomach, on the right-hand end below the liver, it extends down near to the right groin, where it joins with the Large intestine, which latter is five feet in length, and practically encloses the small intestine, first extending

upwards as far as the liver, forming what is termed the Ascending Colon, then turning to the left across the abdomen, just below the breast-bone, the Transverse Colon, then turning directly downwards to the lower part of the abdomen, forming the Descending Colon.

The Muscles are of all sizes and are present in large numbers (500) all over the body — forming what we call *flesh*. Muscles are made up of separate fibers, each enclosed in a sheath and practically bound together in bundles of various sizes, from the great masses, which move the arms or legs, to the minute fibers which dilate or contract the iris of the eye.

Ligaments: Tough membranous cords or bands, holding bones together and in proper relative positions.

Tendons: Bands or cords of tough connective tissue joining muscles to their points of attachment on bones to be moved, or serving as fixed points towards which movable bones, etc., are drawn by muscular contractions.

The Tissues, or the various *materials*, of which the body is composed, differ widely in appearance, in properties, and in structure, though all are in the first instance built up of variously modified cells. These are muscular, vascular,

cartilaginous, adiposin, fatty and nerve tissues, which names explain their meaning.

The Cells are composed of plastic living substance called protoplasm.

The Nervous System is twofold, consisting *First* of the cerebral or *Cerebro-spinal system*, i.e. the brain and spinal cord with its connected ganglia and ramifying system of nerve threads; and *Secondly* of the *Sympathetic system*, centered in a chain of ganglia on the ventral side of the spine, joined by cords, and having an independent system of *Nerve fibers*, spreading over the body, which are more especially concerned with the regulation (unconsciously) of the nutritive system and rhythmic routine working of the bodily organs.

CHAPTER III

OUR FOOD AND ERRORS IN DIET

"When I see fashionable tables set out in all their grandeur, I imagine gout and other ailments, lying in ambush, among the dishes." — LUIGI CORNARO.

"Ninety per cent. of all our disorders are due to errors in diet. The majority eat more than is good for them."

— SIR HY. THOMPSON, M.D.

Dr. Alexander Bryce, in *The Laws of Life*, classified our foods under five headings, as the approximate Alimentary Principles; summarized as follows:

1. *Proteids*, which maintain the tissues, and are obtained from lean meat, eggs, and milk, also from wheat, the legumes, and nuts;
2. *Fats* (or *Hydro-Carbons*), comprised in animal and vegetable fats, and are a source of heat and energy;
3. *Carbohydrates* — rapid producers of heat and energy, most abundant in the food elements (Starches, Sugars, Dextrin, and Cellulose);
4. *Mineral Salts*, such as Phosphates, Chlorides, Citrates, and Iron;

5. *Water*, which constitutes three-fifths of the body.

These five alimentary principles are found in the foods of all nations; but in Arctic regions a larger proportion of fat is consumed, and in the Torrid regions more of the carbohydrates.

Thorough Mastication of our food has three special advantages: *First*, the mixing of the food with saliva effecting the first step in digestion (especially of starchy foods); *Secondly*, the food is thus prepared to be more readily acted upon in the stomach, and there again be in a proper condition to pass into the bowel to perfectly complete the *third* and final stage of digestion, instead of being unduly retained in the colon, and causing the absorption of putrid matter in the blood, all through the first stage of digestion (in the mouth) being neglected. Still, to advise the thorough chewing of soft food, without supplying, with it, some additional food which really requires to be masticated, will prove useless. In other words, good results cannot be obtained by trying to go through the process of chewing, with soft foods, which do not encourage it. Complete mastication of solid foods, to break it thoroughly up, is equally important, as the stomach has no power for such work.

Injurious Habits: The principal ways in which our food may do us injury are: The Quality, The Quantity eaten, Rapid eating, and Eating too often; all such errors can, by a little care, be easily avoided. J. Grant Ramsey, F.R.S.E., has said: "We have such superabundance of food that a second England might be well kept going, out of the present waste, and with probable advantage to the health of the people. Waste is bad, but *the worst form of waste is to swallow it*, as that not only represents loss but the more serious harm of inducing disease." (See Fletcherism, page 30.)

"Don't gobble your food. 'Fletcherise' it, or chew it very slowly. While you eat, talk only on pleasant topics. Don't be in a hurry. Take time, and cultivate a cheerful attitude while eating. So will the *demon Indigestion* be compassed round about and his slaughter be complete." — JOHN D. ROCKEFELLER (*quoted by HORACE FLETCHER*).

Frequency: We are also told by the highest medical authorities that after each substantial meal sufficient time should be allowed, before eating again, for the two main stages of digestion (within the stomach and the bowel) to be conjointly completed. From four to six hours will thus be required before such digestive

process is completed. All digestion, both preliminary and secondary, is nothing short of work for the whole bodily machinery, and if that work is doubled by having to deal with obstruction, the whole system is overtaxed and thus robbed of the strength needed for physical or mental work.

Gluttony and Overeating: The result of gluttony is to bring on feebleness of the eliminating glands, and an excess of noxious matter in the blood; no wonder then that these *long-tried*, but faithful servants, become fatally diseased.

"I tell you honestly what I think is the main cause of the maladies of the Human Race: it is their *gormandizing* and stuffing their digestive organs to excess." — ABERNETHY.

Prof. Chittenden's experiment, at Yale University, shows that the amount of food required for maintaining perfect health is smaller than had been supposed. In his experiments the quantity of flesh foods were also greatly reduced.

"Nine tenths of all our diseases are caused by *overfeeding*." — BENJAMIN FRANKLIN.

Fletcherism: Although the benefits of slow eating have long been impressed upon us by hygienists, Horace Fletcher still finds occasion

to write volumes on the subject. He definitely maintains, with much convincing evidence, that we should take double the usual time over our meals, and well masticate every morsel; also that this practise will *prevent overeating*, economize nearly half our food, increase the benefit from what we eat, and generally cure indigestion.

Consolation for a Weak Stomach: Sir Henry Thompson, M.D., tells us that "Powerful feeders" who boast that they can digest tenpenny nails, suffer, after a time, from the surplus; while on the other hand, the owner of the delicate stomach, *who is always careful*, will probably, in the race of life, take the place of the tortoise as against the hare: this fact may be of some consolation for the possession of the delicate organ — a kind of stomach which often accompanies a fine mental organization.

Eating to the extent of fulness leaves no room for the addition of the gastric juice secreted in the stomach (one or two pints) after each full meal, hence the "heaviness" so often felt for some time after a hearty meal.

Admiral Dewey, when complimented on his superb health on his seventy-fifth birthday, said: "I attribute my good condition to plenty of exercise and no banquets. *We eat too much.* One-third of what a man generally eats is all

he needs in order to live well. . . . The other two-thirds enable the doctors to live!"

A little girl of eight summers was telling her governess of an invitation to spend the day with Lord So-and-so's children, and mentioned the many delicacies and good things which she would be feasting upon. To which the governess replied, "But don't you remember how ill you were last year, and had to keep in bed for some days, after your visit to his lordship's?" "Yes," answered the child; "*but I can assure you. it is well worth it!*" Are there not many grown-ups who often act on the same principle as this thoughtless child, and suffer in consequence?

Food and Warmth: People are often conscious of a chilly feeling when in want of food, but a tired and hungry man becomes conscious of warmth after a good meal. A famous Arctic explorer has said: "During our march our experience was that no quantity of clothing could keep us warm while we fasted, but when we were able to get a good meal we were soon warm and comfortable."

CHAPTER IV

THE DRINK HABIT AND REMEDIES

"Habit is a cable. We weave one thread of it every day and at last we cannot break it." — HORACE MANN.

Habit-forming Drugs: Dr. Wiley, American Pure-food advocate, has said, "Alcohol is a habit-forming drug; and the strongest men, both in mentality and in will-power, may gradually become victims of a habit, deadly to their career."

Delusions: Feeble persons often feel that they are being kept up by stimulants, whereas they are actually being kept down. The sensation from the stimulant deceives them, and they attribute seeming good for what, in most cases, is persistent evil. The next step is often the forming of the Drink Habit. Sir Henry Thompson, M.D., states that "those best acquainted with human physiology now believe that, with few exceptions, men and women are healthier and stronger without alcohol; yet the important truth has still to be preached everywhere, because of the natural bias for those things which gratify the appetite."

Sir Frederick Treves, surgeon to the late King Edward, said that troops cannot march on alcohol, and made the following statement: "In the Ladysmith relief column which I accompanied, the first men to drop out were the men who drank. This fact was as clear as if they all had labels on their backs." Having spent the greater part of his life as an operating surgeon, he said, with Sir James Paget, that of all persons, those on whom he most dreaded to operate were the drinkers.

Effectual Remedies: In treating this complaint, even the most moderate drinking is quite out of the question; *total abstinence is then the only possible hope* of cure and the earlier one begins to abstain, after he is conscious of the tendency towards the craving, the more hope there is of his conquering it; and it is then therefore far safer to exclude alcohol, in every form, from the home. Simple diet, regular sleep and rest, and a firm determination, will often go a long way towards effecting the cure. The victim is very seldom possessed of a strong will or self-control, and hence needs help, example, and absolute freedom from temptation, in his life and death struggle; care must be taken that he does not become thirsty; he should therefore eat much fruit, and may drink

freely of hot milk, diluted with one-fourth part of water, and taken in small swallows, which will tend to prevent thirst and check the craving.

The Non-flesh Cure: Dr. J. H. Kellogg, of the Battle Creek Sanatorium, says: "We have treated here hundreds of persons who have been addicted to the use of alcohol and tobacco, and we almost invariably find that our non-flesh anti-toxic dietary completely abolishes the appetite for both."

Dr. J. C. Jackson, of the Dansville, N. Y., Sanatorium (Inebriate branch), says: "There have been, under my care, over a hundred habitual drunkards. . . . I have found it impossible to cure them while I allowed flesh-meats; I therefore regard it as lying right across the way of restoration."

Mrs. Bramwell Booth has said: "For many years past no flesh food has been used in the dietary of our Inebriate Homes; the physical recovery of the patients has been very much quickened, and more permanent, since we abolished meat from their diet. People seldom realize how one evil appetite feeds another one."

Sweets versus Meat: "My experience," says Dr. Bell, "is that one of the best aids in the cure of the drink-habit is complete abstinence from

a flesh diet, and temperance advocates should well consider this fact. When a person is fond of sweetmeats there is not the tendency either to indulge in alcohol or smoking to excess, and substituting sugar or chocolate will frequently prove most helpful to any one anxious to overcome these habits." Both the American and British Governments have taken advantage of this fact by supplying sweets to the soldiers, who, (especially in the Tropics) crave for sweets, and the more sweets they can get the less alcohol or other stimulants they desire.

The Fruit Diet Cure: The juice of an orange taken daily, before breakfast, for a week or two, preferably in hot water, often serves as a great help against craving for stimulants, and several oranges, eaten daily, will prove of much further benefit. Apples eaten freely are also of much value in this complaint. A mixture of compound tincture of cinchona bark and tincture of capsicum is said to be very effective; the cinchona toning the stomach, and the capsicum tending to counteract the craving.

The Surfeit Cure: The confirmed inebriate in Sweden is sometimes compelled to subsist entirely on bread, the bread being first steeped in wine. The first day the patient enjoys this diet, but soon after is so surfeited by it that he

positively loathes it. The result of eight or ten days of the regimen is said to be simply marvelous; the patient often finding himself wholly reformed, a voluntary abstainer, and also strong enough to resist all future temptations.

A Vital Reason for conquering the Drink Habit, at any sacrifice, is the disastrous effect which excessive drinking has upon one's offspring, and which is seldom outgrown or recovered from. Furthermore, we are told by the best authorities that "there is no surer way of undermining a sound constitution than by an over-indulgence in alcoholics in any form, with the result of structural changes in the heart, liver, kidneys, and tissues"; and, worst of all, these derangements may, according to Erasmus Darwin, be, more or less, transmitted to a degenerate offspring even to the third generation. Destroying a constitution by intemperance has been aptly termed "suicide by instalments."

A Disease: A report of the American Delegates to an International Congress on Alcoholism, at The Hague, and transmitted to Congress by President Wilson, says: "Drunkenness is a *Disease* which the victim has no power to resist; it is a madness which leads to other forms of madness; the inmates of lunatic asylums were mostly intemperate."

To Check the Craving: Sir Wm. Broadbent, M.D., has recommended Bromide of Potassium to counteract the craving for strong drink; and Horace Fletcher states that "if wines are sipped till they do not mix with the saliva in the mouth, the appetite for them will soon be gone."

Cigarette Smoking: High authorities in America and Europe have testified as to the serious harm which results from this habit among youths. Among the immediate evils of the pernicious habit are Shattered Nerves — Stunted Growth — Unsound Heart and Lungs — Lowered Vitality, all tending to mental depravity and to the *drink habit*. It therefore behooves all who are interested in the good of the rising generation, and especially Teachers, to use their influence against so great an evil. A harmless substitute for tobacco, and a very simple suggestion, is for the sufferer to suck a piece of liquorice when he feels the craving for the weed.

The Cocaine Habit: By an act of the British Parliament, 1917, the sale of cocaine is prohibited, except by chemists, and only on a doctor's prescription.

"*Oh, that men should put an enemy in their mouths to steal away their brains.*" — SHAKESPEARE.

CHAPTER V

LIGHT, PURE AIR AND VENTILATION

"You tend to purify men's thoughts and feelings when you purify the air they breathe." — LORD DERBY.

"If inevitable disease has slain thousands, bad air has slain tens of thousands." — DR. BLACKIE.

We are all familiar with the great failure of plants, which, although given proper soil and warmth, and are still *kept in the dark* — how feeble and sickly they become. In quite recent times also much attention has been directed to the curative effects of light and air, even upon disease. Furthermore, medical authorities tell us that the bacillus that causes tuberculosis perishes in a few hours under *sunlight*, which is perhaps the strongest testimony we have to the value of light in our rooms, and plenty of it — direct sunlight whenever possible. It is the foe alike of bacilli and "the blues," — the best tonic ever yet invented for the liver, a real complexion restorer, and the deadliest foe of disease.

"**Light** is the most intimate friend of life," said Hufeland; if the body is deprived of sun-

light, the muscles lose their elasticity, the nerves their tension, the skin fades, and the individual becomes far more liable to contract disease.

As to faded carpets, through letting the sunlight into our rooms, the question is, Which is the most objectionable: faded carpets or faded cheeks? Furthermore, by admitting sunlight into our rooms, enough may be saved, in doctors' bills, to pay for a new carpet every year. It is also equally important that the sunlight be admitted into our bedrooms, as well as our living-rooms, during the day, since sunlight is an effective germicide. "Not all the carbonic acid in the world can furnish such a supply of germicidal power as does the sun."

INDOOR TROPICS

Overheated Rooms: In a pamphlet with the above title, published by the American Government on "*The Injurious Effects of Overheated Dwellings*," Surgeon J. M. Eager says: "Although a moderate degree of indoor heat is necessary, still, by misuse of a perfect system of controlling house temperature a harmful fondness for excessive heat is acquired, and too high a temperature makes the house an unhealthy dwelling place. The temperature of

our living apartments, churches, schools, etc., should never rise above 70° F. A temperature higher than 70°, in a schoolroom, is worse than illiteracy. Who would think of sending children to the tropics for their schooling? Long hours spent in schoolrooms, often kept at 80° and 85°, render children unable to stand outdoor exposure. True, the elderly and the sick should be protected against low temperatures, but their necessities, rather than their preferences, should be considered, thus avoiding danger by indulgence. The aged and invalids often crave for high temperatures because they have become accustomed to harmful conditions. Many diseases are benefited by a moderately low temperature."

The late Lord Lister pointed out that the high death-rates among the poor, from consumption, were traceable to bad nutrition, and to foul air resulting from closed windows — closed for want of fuel and clothing.

Bracing Effect of Cold: Dr. Leonard Hill writes as follows: "*The modern tendency to over-heat the air of our living-rooms is bad; the bracing effect of cold is of supreme importance to health. We become less able to resist the attacks of infecting bacteria in the winter, not so much because of the cold weather as through our*

overheated living-rooms, factories, and meeting places." (*See prevention of colds, Ch. XIII.*)

Value of Open Air: Here we have a wondrous agency for the prevention and curing of disease, and every possible advantage should be taken to secure its benefits — day and night. Extraordinary developments have been observed in delicate and flat-chested young men, by a few months of British camp life; as proof of this, a number of new uniforms, made on measurements, taken three months before, were found much too small and had to be returned — the result of exchanging indoor for outdoor life. If fresh air were an expensive commodity we should prize it more highly, and perhaps take more trouble to procure it.

Ventilation: *The dread of fresh air* by those who most need it is productive of much ill health, and the pernicious habit of tightly closing our rooms, for fear of taking colds, can be corrected, by beginning carefully and by degrees, when the improvement in health will be a surprise to the victims of what has been termed "Aerophobia." It has been shown by experiment that if the water which streams down inside the window-panes of a closed sleeping-room be collected, *one drop* of this liquid (saturated as it is with noxious exhalations, given off

by the sleeper, during the night) will suffice to poison a rabbit.

Much as has been written and preached about thorough ventilation, very few people seem to be aware of its vital importance, and that a large proportion of our illnesses are due to breathing, over and over again, the vitiated air of our living-rooms. It is also a common belief that if a bedroom window is open an inch or two it is sufficient for the purpose of renewing the air of the room, which is a serious mistake.

The air vesicles of the lungs are said to have a total superficial area of one hundred square yards, or fifty times the area of the body. With such a surface employed in breathing, we can well believe Sir Morell Mackenzie's statement that "the process of re-breathing air that has already been used, if long continued, leads to asphyxia and death, but short of this, it leads to much so-called delicacy, susceptibility to colds, languor, headache, and nervous depression."

Nose breathing. It is a fact that foul air may be breathed a considerable time through the nose with little immediate effects being apparent, whereas, if breathed through the mouth, it would cause immediate and serious results. Infectious diseases are also more readily caught when breathing through the mouth.

CHAPTER VI

RESPIRATION AND DEEP BREATHING

“Thirty deep inspirations, every morning, in a pure atmosphere, will do more in coloring the cheeks than chalybeate waters or iron pills.” — NIEMEIER.

Respiratory exercises beneficially affect the nutrition of the tissues and increase the resistance to diseases.

Proper Breathing: The importance of a constant supply of fresh air to the lungs makes it essential that we attend to the matter of breathing, which is, to some extent, under our control, and can be so managed that the purification of our bodies, by oxygenation of the blood, shall be complete. Besides, in the close rooms, offices, or workrooms, where so much time is spent, the air is far less pure than outdoor air, thus reducing the supply of oxygen for the body, and demanding more attention to the matter of deep breathing; if not during working hours, then all the more needed at other times.

This can easily be done by slowly deepening the exhalations, whereby the lungs are better cleared of the vitiated air, and then able to

draw in a *fuller supply* of fresh air. When we are at rest, less of the air, in the lungs, is changed at each respiration, and hence the total air content of the lungs is only partly freshened; while deep breathing makes this freshening much more complete. The organs of circulation — heart, arteries, veins, and lymphatics — are also strongly influenced by deep-breathing exercises, which in a milder form, are as useful for women as for men, but mostly unsuited for the delicate and those with lung or heart disease, who should therefore practise milder forms, or take them under medical advice.

Deep breathing is also a valuable muscular exercise. It removes a tendency to bronchitis, stimulates the liver, exerts a decided influence on the stomach, and benefits the heart by stimulating the circulation.

Respiration: The function of respiration is mainly to supply the system with oxygen from the inhaled air, in exchange for the carbonic acid given off from the blood. In the minute network within the lungs the blood is separated from the inhaled air by walls so porous that this interchange easily takes place through them.

The Art of Breathing: "The absolute control of the breath," says Albert Vissetti, "is an art but little practised, except by singers and

public speakers. The lungs are seldom wholly used, and therefore become weak. . . . It is curious that the people of the twentieth century do not pay more heed to the subject of breathing. Some two thousand years before the time of Christ, the Chinese and Indians cured several diseases by breathing exercises. It was in the Middle Ages that the art was lost. Breathing must again be regarded seriously, as an Art, before it can have a fair chance of *assisting in the war against disease.*"

Shallow Breathing is a matter of habit, and can be largely overcome by effort. As the blacksmith's arm becomes stronger by use, so with the lungs. When once the pernicious habit of shallow breathing has been broken up, the health undergoes very marked improvement, and there is much brightening of the spirits.

In view of such benefits the importance of deep breathing — *cautiously carried out*, and with medical advice for the delicate — is very evident. We say "cautiously," because as before intimated, if, practised beyond moderation, a weak heart may become overstimulated by an excess of oxygen, and mischief may ensue. Those with weak lungs should also exercise caution in this respect.

CHAPTER VII

CHEERFULNESS AND ITS EFFECTS

"Frame your mind to Mirth and Merriment. It bars a thousand ills, and lengthens life." — SHAKESPEARE.

"Wondrous is the strength of Cheerfulness, — past all calculation in its power of endurance." — CARLYLE.

"Start some kind word on its travels. There is no telling where the goodness will stop." — REV. DR. TALMAGE.

Health being the result of a general activity of the many functions of the body, and these being kept going by constant stimulus from the nervous system, it follows that any influences, affecting that system, must react upon the general health. Therefore our recreation, pleasures, mirth, etc., which produce a *cheerful frame of mind*, are a favorable stimulus to the nerves, causing a *high level of efficiency*. It is like a strong draft in the engine's furnace; it keeps the steam up.

Cheerfulness is a sign of health, and without health a full enjoyment of life is impossible. We cannot all be like Dickens' Mark Tapley, but every one can do something to make life more cheerful, among friends as well as at home.

Robert Louis Stevenson very pithily said, "A happy man or woman is a better thing than a five-pound note; he or she is a radiating force of good-will, and the entrance of such a one into a room is as though another candle had been lighted."

Cheerfulness and hope are also important aids in maintaining bodily health and a sound mental condition. A person will recover much more rapidly from an illness if cheerful and hopeful. "A merry heart doeth good like a medicine, but a broken spirit dryeth the bones," says Solomon.

"Cheerful Perseverance will bring you to a better position; grumbling won't help you," said the late Lord Strathcona.

There is the old story — and said to be a true one — of a married couple, who could never refrain from wrangling, but who, one day, agreed, just for one week's experiment, to revert to the happy hours of their old courting days; and how this proved to be such a wonderful revolution and revelation that they resolved to continue it, which they did, with permanent success.

Laughter: "The bodily movements in laughter hasten the circulation and respiration, raise the blood pressure, and bring about a general well-being."

“Laughing makes the young grow younger,
Makes the old feel young again,
Stimulates a healthful hunger,
Stirs the blood, and clears the brain;
Therefore, if your cares be chronic,
And you would your woes beguile,
Treat your trouble to a tonic,
The cheerful tonic of a smile.”

“Prithee take thy lute and sing, Nor dread the morrow.
If pleasure hath a fleeting wing, So hath sorrow.”

— MUNSEY

“A kind heart is a fountain of gladness, making everything in its vicinity to freshen into smiles.” — WASHINGTON IRVING.

“Cheerfulness is health; the opposite, melancholy, is disease.” — JUDGE HALIBURTON.

“We traverse the world in search of Happiness, which is within the reach of every man — a contented mind confers it on all.” — HORACE.

“Even in the most chequered life,” says Charles Dickens, “there are so many little rays of sunshine to look back upon, that no mortal would deliberately drain a goblet of the Waters of Lethe if in his power.”

“A cheerful friend,” said Sir John Lubbock, “is like a sunny day, shedding brightness on all around. . . . Most of us can, as we choose,

make of this world a palace or a prison. There is a certain art in keeping ourselves happy."

Never put your umbrella up till it begins to rain,
Those who seek for troubles will never seek in vain,
Then put your umbrella back,
With your troubles in the rack,
The sun will shine again. —ANON.

"Cheerfulness and good spirits depend much on bodily causes, but much may be done to promote them. Those who are subject to low spirits should make their rooms as cheerful as possible; the wallpaper should be brilliant and lively, and the walls hung with pictures, and the chimney-piece covered with beautiful china. The windows should look upon pleasant objects, and, above all, a bright fire should be kept up in cold weather, it being very favourable to good spirits. To this must be added such eating as is conducive to health, and also some manual employment." —SIDNEY SMITH.

CHAPTER VIII

EXERCISE AND REST

"He who cannot find time for exercise, will have to find time for illness." — LORD DERBY.

Value of Exercise: Deficient activity in the muscles or other organs causes a lessening of the blood supply and of nervous stimulation. This means a lessened repair, and even a wasting. On the other hand, any undue activity of muscles means the using up of material faster than it can be renewed. Besides, the excessive use of one set of muscles, or organs, does not compensate for the relative disuse of others. And herein lies the reason for the necessity of both moderate exercise and rest. Daily moderate exercise is therefore an absolute necessity for every one—always within the actual capabilities of the individual: for the youth, to effect proper development, as well as for the adult. Strong men are born and not made, and competition in great muscular feats may easily result in serious injury. Health, and not feats of strength, should be the main aim and object.

“Work done by muscles already fatigued,” says Masso, “is more harmful than a heavier task done under normal conditions.” The upkeep of the muscles of the “strong man” is often so great a strain on his vitality that an acute attack — from which a weaker man would readily recover — may prove a very dangerous illness. Such persons should therefore exercise special caution in using, to the full extent, their strong muscles.

Recreation and exercise should go hand-in-hand. If a man’s recreation be only money-making, and this becomes a grasping habit, and if he has no other hobby, when he wishes to retire, he finds he has lost the power of enjoying life, and has little worth living for. *Walking* is an important means of counteracting a tendency to decay, because the atrophy of the muscles is generally one of the first manifestations of senility, and one of the principal causes of loss of weight and heat production in the aged; still the pace should not be so great as to cause breathlessness, but should be quick enough to produce a gentle glow of the whole body.

One of the important objects of exercise is promoting *the removal of waste products* of the tissues; since many chronic affections, such as

gout, and premature failure of the small nutritive blood-vessels, are caused by imperfect removal of waste. . . . Many more people wear out from over-rest than from over-exercise; and this is true, not only with regard to their muscular energies, but also with regard to the circulatory system and the brain. However, "For those past middle life," said Sir Benj. Richardson, "*extreme* physical exercise has the effect of reducing, more rapidly, an already declining power; it is then a process of running down the hill of life, when it should be leisurely walked down." (See page 55.)

When Count von Moltke, the great General, was asked, in his ninetieth year, by what means he had maintained his health and activity, he replied, "By great moderation in all things; by regular outdoor exercise *in all weathers*."

Playful Outdoor Exercise: Herbert Spencer, in discussing the subject of physical education in girls' schools, said: "Gymnastics are not an adequate substitute for play. Happiness is the most powerful of tonics, hence the intrinsic superiority of playful gymnastics. The extreme interest felt by children in their outdoor games is of as much importance as the accompanying exertion." At least one hour's active outdoor exercise (two when possible) should be taken

daily, whenever the weather admits. A brisk walk is only surpassed by horseback riding and by cycling. The bicycle tends to rejuvenate the body, almost beyond belief.

Another object of exercise, besides developing muscle, is that indigestion, insomnia, and rheumatic troubles are preventable by judicious exercise. Ling, of Sweden, 100 years ago, devised the scientific system of exercise which still bears his name, and which aims to benefit the *internal organs* as well as the muscles, e.g., holding a full breath for a few seconds warms and expands the inhaled air, and thus drives it into distant air-vesicles and exercises them.

Indoor Exercise: This can easily be practised, even when sitting down, by the following movements, when going out is not practical: Contract the hands and muscles of the limbs. Expand the chest by deep breathing, raise and lower the shoulders slowly but firmly. Stiffen the neck. Turn the head slowly from side to side, then bend it slowly forward and back. Then, while standing, and with the legs quite straight, practise "leg-lifting" by pulling up each leg alternately from the hips. An approaching cold may thus be warded off, if the exercises be taken at its first onset, and continued for 20 or 30 minutes.

Rest: Much exercise should be followed by sufficient rest; want of which, after fatigue, causes wasting. In illness and after an injury the importance of rest is well known. Mental rest, especially, for the brain worker, by occasional pauses during the day, is very beneficial. In cases of indigestion rest of the stomach by abstaining, at times, from food is an important aid. Rest both before as well as after meals is always of much benefit. One should never sit down to a full meal when feeling tired, mentally or physically, but should first become thoroughly rested. A frequent mistake of the delicate or aged is that they unconsciously tire themselves, on long walks; short walks with periods of rest are far more serviceable. What is termed a "Rest-Stick," that is, a walking-stick, the handle of which opens into a useful temporary seat, will be found invaluable for those who need such a means of resting. When one is physically tired the tired feet may be much relieved by exercising the muscles of the arms and shoulders or by changing the length of step. One should never tire the body thinking thereby to rest the brain. (*See Chap. X, page 63.*)

CHAPTER IX

SOUND SLEEP AND ITS BENEFITS

"Tired Nature's sweet restorer, balmy Sleep." —YOUNG.

"Sleep has such healing virtues that it might be considered a Natural cure for all diseases." — MENANDER.

Sleep seems to be a kind of imperative general rest, enforced upon the nervous system, and thus upon the whole organism, when waste products have accumulated faster than they can be removed. Sleep may thus be practically regarded as an enhanced form of rest, in which the whole system including the conscious brain is involved, though the essential functions of circulation and digestion have still to be carried on. During sound sleep the activity of the bodily functions is considerably reduced; thus the nervous and muscular forces increase, and morning finds the well-slept man awakened, "like a giant refreshed." In the child too little sleep causes feverishness, paleness, and indigestion. Proper sleep reduces fever, quickens nutrition, soothes pain, and eliminates waste products. Sleep induced by a heavy meal is *torpor*, rather than rest, and therefore of very

doubtful benefit; moreover, as soon as such sleep becomes too profound, digestion is retarded; on the other hand, a *starved* brain is an *active* brain, and refreshing sleep cannot follow too long fasting. There is a limit to which Nature's laws can be trifled with.

The maid is to be envied who said she never had a chance to enjoy her bed; when her head touched the pillow she fell asleep, and when she awoke it was time to get up!

Proper sleep is a great restorative to jaded nerves, and as much sleep as is possible should be taken by the victim of nerve troubles. Persons engaged in sedentary occupations require less sleep than those who pursue active bodily callings, which require an expenditure of muscular power. Lack of oxygen in the air of the sleeping-apartment tends to congest the brain passively, and to induce heavy sleep, which, however, is not refreshing. A familiar example of this stupor is the drowsiness which gradually steals over the senses in a crowded room.

Oversleeping: Emanuel Kant, the great German philosopher, said: "Too much sleep exhausts the energy and shortens life." And Sir John Sinclair — "*Life and Longevity*" — said: "Too much sleep brings on sluggishness and dulness of the animal functions, and materially

tends to weaken the body, and blunt the senses. From the slowness of the circulation it causes corpulency, and a tendency to other disorders."

Somnambulism (or Sleep-walking, as the term implies) is a strange and sometimes dangerous habit, in which the patient quite unconsciously walks about, during sleep. Such a patient should, if possible, have a bedroom on the ground floor, or have the windows made unopenable, at night.

Recharging of the Battery: "During the working hours of the day the processes of our bodily structures and tissues are of a depleting character, and sleep is a recharging of the battery. Sleep (or rather a state of unconsciousness) produced by drugs is a most dangerous counterfeit," says Dr. Fernie; and Dr. Bryce tells us (*Laws of Life*) that during sleep the temperature falls from half a degree to two degrees (F.), and that less heat is lost than when we are awake. The soundness of sleep varies, but, as a rule, in healthy people, it is greatest during the first few hours, after which it gradually lessens. The temperature, and hence the vitality, is lowest about 2 A.M., and this may account for and confirm the old saying that "two hours' sleep before midnight is worth four hours' after," the earlier sleep being the best preparation for recuperating

the vital functions. When the brain is active, 30 to 50 per cent. more blood is hurried thither. Brain-work should therefore be scrupulously avoided at or near bedtime.

Loss of sleep tends to the harmful accumulation of waste products, which should be excreted during sleep while restorative nutrition is going on in the brain at the same time. A complete relaxation of all the muscles when lying down conduces to immediate sleep, day or night. This should be accompanied with slow breathing and counting the breaths, which will further tend to relieve the congested brain, and thus induce sleep. A short nap of ten minutes (not longer) during the day, and just after the midday meal, will count much for efficiency during the rest of the day. (*See page 143.*)

“O sleep! O gentle sleep!

Nature's soft nurse, how have I frightened thee,
That thou no more wilt weigh my eyelids down,
And steep my senses in forgetfulness?” — HENRY IV

CHAPTER X

WORRY AND WASTE OF VITAL ENERGY

*"To nourish mischiefs past and gone
Is the way to draw new mischiefs on."*

— SHAKESPEARE

*"Abraham Lincoln's heart was as large as the World, but
no room in it to nourish a wrong."* — EMERSON.

*"Keep composed, ever retaining an outward calmness,
whatever storms may rage within."* — GOETHE.

The human body compared with business life. Our physical income is limited, and we cannot allow our expenditure, in life, to exceed its income for long, without disaster. As in economics, our capital or reserve (our vital bank-balance as it were) is built up entirely out of such income, and our life expenditure must not exceed it. "Many people spend energy faster than they can manufacture it, thus tending towards physical bankruptcy." — O. S. FOWLER.

Reserve of Energy: The nervous system should never be allowed to run down so much that it cannot be readily restored by rest and sleep. People with nervous temperaments rap-

idly discharge their stores of vitality, and should take stated periods of rest and cultivate a spirit of repose; otherwise such subjects grow prematurely old, without timely relief, and are liable to a breakdown, especially if circumstances keep them largely indoors. Rest, and variety in occupation is the salvation of many brain-workers.

Earnest and excitable talking, nervous hurrying, and hasty meals are all useless waste of energy, and tend to deplete the stores of physical and mental strength, which one should conserve for future needs. An example of such useless sapping of vital energy is recorded of a lady who through a habit of excessive earnest talking had experienced a nervous breakdown; but after recovery, at a "silence cure," returned home, only to experience another collapse, through being again exhausted in narrating, to eager and anxious friends, the wondrous experience of her cure!

Vital Economy: Many people have an unfortunate habit of recounting their past troubles, forgetting that this is a serious tax on their vitality; this they should endeavor to economize, by looking on the bright side — past, present, and future.

One worry at a time is quite enough. Some

seem to prefer having three — one for what they have had in the past, one for the present, and one for all they expect in the future! Such lives are unhappy, and contribute nothing towards the happiness of friends.

Hurry and worry are generally the result of bad management or want of self-control — a great blunder and a waste of energy. Dr. Mortimer Granville (Nerve Specialist) thus compares two sorts of life and work: — “One may be compared to driving a nail with violence, and the other to the steady and quiet use of a screw-driver. The first may attract more attention, while the other more closely resembles a calm and patient triumph over difficulties. We should work by careful plans, without allowing our strength to be squandered by impulse and want of precision. It is as perilous for any one to carry a disturbed mind through the worries and turmoil of a busy life as to drive a restless horse through a crowded street. . . . The habit of nursing one’s worries should be counteracted by some regular and interesting occupation. Judicious mental work, with rest at intervals, tends to strengthen the worried brain. The maxim of a wise and natural life should be “Let forethought and order prevent hurry.” The loss of power to keep the attention fixed on

any one topic is a significant symptom that hurry is producing worry. Those who feel this coming upon them should be wise in time. Those who are frequently worrying should first ask themselves, "Are my worries real or imaginary?" and if they are sometimes real, people need not allow themselves to give way to depressing emotions. An American millionaire is reported to have said, "I have had many troubles in my life, most of which never happened."

Mental and Bodily Fatigue: "Mental fatigue does not require bodily work to balance it; if there is energy to spare, it may be devoted to physical exercises; but when there is no margin after the mental work is done, there will be nothing gained, but much may be lost, by adding bodily fatigue." Furthermore, the over-tired brain-worker, needing a rest of brain, too frequently makes the mistake of thinking that much muscular exertion will do him good, and a violent turn of physical exercise is undertaken, with the result that at the end of his holiday he finds himself more in need of a rest than before, and a nervous breakdown is often the result.

Anger and worry are potent forms of over-strain, fatigue, and ill-health. In most cases

worrying prophecies do not come true, or, when they do, their fulfilment is generally caused by the worry itself. Dr. Henry Fletcher says: "Concentrate your efforts against anger and worry, and the small army of lesser passions will disappear; oppose them, and they, and all their progeny, will fly. They are like echoes; they do not exist till we call for them, and the louder we call, the louder is their response; yet, if left alone, they generally drown themselves."

Passions: Sir Benjamin Richards, M.D., has told us that "By a violent fit of passion the natural beat of the heart may become changed to the pulse of an old man, and permanently retained."

"To persevere in duty and to be silent is the best answer to calumny." — WASHINGTON.

"Washington's passions were naturally strong, but he had the power of checking them in an instant; perhaps self-control was the most remarkable trait of his character." — *Sparks' Life of Washington*.

I wish that sympathy and love and every human passion,
That has its origin above, would come, and keep in fashion;
That anger, jealousy and hate, and every base emotion,
Were buried fifty fathoms deep beneath the waves of ocean.

— JOHN G. SAXE

CHAPTER XI

LONG AND HEALTHY LIFE — HOW ATTAINED.

"I saw that time of life begin, When everyone, the port approaching, should coil the ropes and take the canvas in."

— DANTE

"Discerne the coming on of years, and thinke not to doe the same things still, for Age will not be defied."

— LORD BACON

The main purpose of our book is to teach Sound Health, which is, no doubt, the most effective means of prolonging an enjoyable life, and it also adds very much to that desirability, for few of us would desire a long life if it were to be an ailing one. "The best means of prolonging life is to do nothing tending to shorten it" is a sensible *multum in parvo* German dictum. Unhygienic habits, injudicious diet, and excesses of any kind tend to shorten and cripple our lives. It is from carelessness more than from want of knowledge that we go wrong, or shorten life by disease and premature decay.

"It is right that we should strive to prolong life to its *utmost natural boundary*, whatever that may be. I am disposed, like Flourens, to

place it at one hundred years." — SIR JAMES CRICHTON-BROWNE, M.D.

Valuable lives are often cut short, by the aged not realizing that they are no longer able to withstand the strenuous work of their younger days. "In order to live long choose healthy parents," quaintly said the late Oliver Wendell Holmes. The advice comes rather late in one's life to be available, but heredity is half the battle, and the other half is with the man himself.

Negative Points: Long-continued activity of the brain seems, in no way, to impair its enduring qualities; Titian, for example, was engaged in painting a picture (now in the gallery at Venice), when, in his ninety-ninth year, he was cut down by the plague. Nor is it the vigor of the muscular system which leads to longevity, nor yet the strong digestive system; while a weak digestion compels moderation in eating, thus also leading to a longer and happier life. Again "the conditions of Age and Senility are not to be considered entirely due to hardening of the arteries or wearing out of the organism," says Prof. Metchnikoff, "but to the effects of a chronic disease, due to the absorption, from the intestines, of poisonous products, by putrefactive processes therein."

Luigi Cornaro, the Venetian nobleman who

lived to over 100 years, attributed his long and healthy life mainly to his abstemious diet, as set out in his book, which he wrote in his 95th year, entitled *A Sober and Temperate Life*. He followed most rigid rules for lessening his diet, with advancing age. "What would Diogenes have exclaimed," said Cornaro, "had he been present at the gluttony of a modern meal? For my part, when I behold a fashionable table set out in all its magnificence, I fancy I see gout and other distempers *lying in ambush* among the dishes." "More have fallen by gluttony at home than by the sword in battle," says an old adage. And Solomon says, "Through surfeiting many have perished, but he that taketh heed prolongeth his life."

Habits Conducing to Enjoyable Old Age:

According to U. S. Government statistics there are some thousands in the States above 90 years of age; and Dr. Virgil A. Davis of Kansas City has taken the trouble to visit 672 of these, in 30 of the States, among whom 138 had passed the century age, and one had reached 130 years and had a daughter living who was nearly 100. The Doctor's object was to learn what habits and conditions most conduce to a healthful and enjoyable old age, and also to ascertain the avoidable errors which tend to shorten life.

An outdoor life was the one great factor which towered above all else, at least in their early lives, and they always had their bedrooms well ventilated. Practically none of them had ever used alcoholic stimulants or tobacco except in a very small way. Most of them had never eaten much meat and were very fond of honey and had taken much of it, also milk or buttermilk. All had been cheerful, good laughers, and free from worry, and had been hard workers, some millionaires included. They had all been good sleepers and went to bed early.

Dr. Tavalì, of Turin, sent questions to a great number of Italian reputed centenarians, and 52 of them replied. The majority reported that they ate little or no meat, took very little wine or none at all, kept a cheerful temper, and avoided all worry and excitement.

Sir Hermann Weber, M.D., says: "I have occupied myself with the subject of 'Longevity' for half a century, and after having carefully entered into the records of more than one hundred cases of long life, I find that the large majority of them were temperate, lived much in the open air, led an active life with great restrictions as to the amount of food; most of them were early risers, a great proportion had a happy disposition, and that only a few were

intemperate or idle." He cites various noted men who did good work at a very advanced age, including among others Plato, Galen, Cato, Cicero, Titian, Michael Angelo, Wesley, Franklin, Goethe, Victor Hugo, Voltaire, Von Moltke, Tolstoi, Bismarck, Gladstone, and Dr. Holyoake, the American physician who died at the age of 100, also the late Lord Strathcona. He found many aged people who were able to give wise counsel, eager to read and learn, and who never found the day too long.

Dr. Victor Vaugh, President of the American Medical Association, said (1915): "Since 1880 the average length of life in the United States has been increased more than 4 years, and if the American cities would install Wm. C. Gorgan's health rules, life-span could be brought up to average 65 years."

"*The duty and privilege of the aged is to be useful to those who succeed them; to impart to the young the fruits of long experience, to warn them of the dangers of life, and to instruct them in conduct.*" Aged wisdom, with virtue, exerts authority over the human mind. It can check the most forward, abash the most profligate, giddy, and unthinking.

Changes Incidental to Age: Prof. Humphry, M.D., addressing the Medical Society of Lon-

don, said: — "The changes in the human body between the ages of 50 and 100 years (the descending period) are as regular and orderly as in earlier life. The main features of the descending period are the following: — The muscles become weaker, and the nerve apparatus exhibits a lowering of energy. The weakening of the heart and the less elasticity of the arteries provide a more feeble blood current and lower digestive power, which necessitates *a less intake of food fuel*, so as not to choke the slowing fires. The healing of wounds takes place as quickly as in middle life. The restorative processes of sleep are not so brisk as in the young, still the quick recovery of strength by old persons, after an illness, is sometimes surprising, and is probably attributable to the general soundness of the system, and the good balance of the several organs which have brought them to advanced age. As to the changes in the skeleton: the bones which, up to maturity, gain in weight and size, now gradually lose weight, but rather increase in size and become more brittle. In the bent back of old age the vertebræ become modified in form in consequence of the stoop throwing the weight of the trunk upon the forepart of the spinal column. The skull also becomes lighter, thinner, and slightly smaller."

Many aged people are alarmed by their becoming thinner, and, to avoid this, they think they must eat more, but this is quite a mistake. In the great majority of cases increase of weight, after 70 or 75, is not good, and corpulency, whenever it occurs should at once be counteracted by the quantity and quality of food, and by exercise. "A slow decrease in weight is mostly observed in those who reach a very advanced age." Sir Hermann Weber, M. D.

Though I look old, yet I am strong and lusty
For in my youth I never did apply
Hot and rebellious liquors in my blood:
Nor did not with unbashful forehead woo
The means of weakness and debility;
Therefore my age is as a lusty winter,
Frosty, but kindly."

CHAPTER XII

FIFTY RULES AND MAXIMS FOR THE AGED

"An honored Old Age is of more value than all the pleasures of youth." — CICERO.

"Few know the value of ten years of healthy old age. Now in my ninety-fifth year I am as healthy, and happy as if only twenty-five." — LUIGI CORNARO, Italian Nobleman.

A man is exactly as old as his arteries. — VIRCHOW.

Attend promptly to every ailment, however slight.

Baths below 80 are unsuitable for the aged.

Be a boy as long as you can. — HERBERT SPENCER.

Better be 70 years *young* than 50 years *old*. — O. W. HOLMES.

Brave no very inclement weather, or high cold winds.

Cold, to the inner and outer man, is a foe to the Aged.

Conserving energy, the great secret of longevity.

— SIR F. LAKING

Constipation must in all cases be entirely avoided.

Continue some interesting hobbies, to avoid rusting out.

Defy not Age by attempting tasks of younger days.

— BACON

Excessive exercise, in old age, causes Hardened Arteries.

Excess of farinaceous foods tend to obesity in the aged.

Food should be gradually decreased in amount, with advancing age, in proportion to inactivity.

— CORNARO

Fifty Rules and Maxims for the Aged 73

Friction with flesh-brush, over the whole body, is invaluable for the aged. (*See Chapter I.*)

Gluttony — main cause of human maladies, shortens Life.
— ABERNETHY

Habits of rapid eating, most harmful, and *must be overcome*.
In order to live long, choose healthy parents! !
— O. W. HOLMES

Intestinal putrefaction causes hardening of arteries and Senility.

Joyful and cheerful habits should be studiously cultivated.
Join in children's games and pastimes whenever feasible.
Keep body and mind always within limits of fatigue.
Keys to Life and Death are in the stomach. — BEECHER.

Leakage of vital energy leads to senility.

Less meat-eating essential, to avoid hardening of arteries.
Living to promote health and long life becomes easy by habit. — SIR H. WEBER, M.D.

Look ever on the bright side; banish tendency to sadness.
Make absolute Moderation, in all things, the Rule of Life.
Milk is generally unsuitable for the aged.
Mirth and Merriment tend to Lengthen Life.
— SHAKESPEARE

Much meat-eating tends to hardening of the arteries.
Nature's danger-signals (impaired faculties) must ever be heeded.

Never neglect even the first symptoms of bronchitis.
Open-air exercise and gentle Deep Breathing promote longevity.

Over-eating is often the great mistake of Old Age.

Proteid foods should not be taken *in excess*. The aged cannot deal with the excess so well as the young.

Quietness and Cheerfulness, at meals, is most essential for the Aged.

Rest body and mind, before and after every meal.

Sit down, rather than acquire the tiring habit of standing about.

Sleep much; but *too much* sleep promotes corpulence.

Soured Milk or Buttermilk (drunk freely) tend to prolong Life.

Sudden exposure to severe cold is dangerous for the aged.

Sugar, when it agrees, and is not taken with flesh food, has wonderful power for maintaining strength.

Thorough mastication of all foods prevents over-eating — *absolutely essential* for the aged.

Time spent in open air is never wasted. The aged and infirm much benefit from sitting out, well wrapped up.

“To attain Long Life, do nothing tending to shorten it.”

Under-feeding need scarcely be feared by the aged, if taking little exercise.

Violent fits of Anger highly dangerous, after middle life.

Worry saps vital energy and tends to shorten Life.

Youthful excesses result in debt, payable in old age.

Zealously observe the rules here told, and reap rich rewards.

CHAPTER XIII

COLDS: CAUSE, PREVENTION, REMEDIES

“Cure every cold the day it’s caught.
Late remedies may come to naught.
Or, better still, these precepts heed;
And thus from risk of colds be freed.”

If, as we are told by medical authorities, taking cold is the cause of half the diseases of humanity, then *Prevention* is of vital importance. When a severe cold has entered the system we awake to the necessity of a struggle therewith; but then the enemy is *within the fortress*, and the result of the conflict will turn largely upon the condition of the body at the time, and on our power of resistance. We are apt to look upon colds as inevitable evils and of little consequence, whereas no danger to which we are every day exposed is more serious. Some who are young and robust seem to enjoy immunity from colds, but they do not form the majority.

An old and true saying is that “A good doctor can cure a cold in two weeks, but it will get well of itself in a fortnight.” This is not said disparagingly of the doctor, but only to emphasize the fact that if a cold has once got a thorough hold of the system it will most probably run its

course. The safest plan is to promptly attack the enemy and restore the action of the skin, thereby relieving the internal congestion. Persons whose vitality is low, and in whom colds produce serious effects, should lose no time in adopting home remedies at the outset, and thus arresting what, in many cases, may be the onset of some serious disease. A time-worn adage says, "Feed a cold and starve a fever," respecting which, "Overfeed a cold and *have* a fever," would be far more appropriate.

CAUSE AND PREVENTION OF COLDS

The causes of colds are, in most cases, microbic infection. Allowing the physical system to become enfeebled, with low vitality, through disregard of the simple Laws of Health, also renders one less capable of resisting colds.

Sudden Exposure to Heat When Chilled: The aged, especially, are the victims of this subtle influence. "One of the best known facts in science," said the late Sir Benjamin Richardson, M.D., "is that when the outer surface of the body has been exposed long to cold, the greatest risk is run in *suddenly re-inducing warmth*, and extreme congestion follows. An enfeebled man goes out on a cold day and soon feels chilled through: he returns to a warm room, goes to

the fire, and breathes eagerly the heated air. He then goes to bed, and perhaps wakes in a few hours with pneumonia, or bronchitis. What has happened? *Simple physical reaction*, under too sudden an exposure to heat after exposure to cold; common colds often are taken in this way."

Tendency to colds may be prevented by a habit of *deep breathing*, preferably in the open air and while walking briskly. Breathing deeply and slowly in this manner, for five or ten minutes, repeating the practise every hour, for several hours if necessary, will also throw off waste materials and revitalize the blood, thereby imparting warmth and energy. If strength or the weather do not permit of going out, the patient may lie on his back, in a well-ventilated room, and in this position practise deep and full breathing, so as to well expand the lungs, without pain or fatigue. If this simple exercise be tried it will usually prevent any progress of congestion of the lungs, but it must be carried out where the air is quite pure.

Mouth Breathing: The nose is the natural human respirator, it warms and filters the inspired air, which is thus much better fitted to enter the lungs than when inhaled by the mouth. Habitual mouth-breathing tends to promote

affections of the throat and chest. The difference between breathing through the nose and the mouth is so great, that it may be truly said the former purifies and warms the air in its passage to the lungs; the latter admits impurities and infections; the former tends to preserve health; the latter to produce colds, bronchitis, neuralgia, etc. The enthusiastic George Catlin, writing about the North American Indians, first called attention to the fact that no savage tribe breathes through the mouth, and that mouth-breathing is seen only among civilized nations, who are much more subject to taking cold.

BATHS AS PREVENTIVES OF COLDS

The Towel Bath: When a bath is not convenient, a thorough rub down of the trunk and limbs with a wet towel, lightly wrung from tepid water, and followed by a brisk rubbing with a dry one, will tend greatly to fortify the system against taking cold. This process is so exceedingly simple and convenient, that no one who regards health and *freedom from colds* should omit it. When the habit has once been acquired the process will be found a pleasure, and the benefits invaluable. He who cannot find time for his daily ablutions must find time for lying up with colds or other illnesses.

After all baths, warmer than 90° (the natural temperature of the skin), the stimulating application of cold or tepid water over the whole surface is indispensable to prevent susceptibility to taking cold; the highest authorities ascribe, to this after-process, tonic and invigorating effects of supreme value. Those who are partial to warm baths should always bear in mind that though such baths, when taken too warm, are enervating, yet a thorough and quick cool sponging on coming out of a warm bath will be found invigorating and beneficial, counteracting the enervating effects of the warm water. Indeed, good authorities on bathing even recommend warm baths, provided they be always followed by thorough tepid sponging, or a cool shower-bath. A towel dipped in tepid water, and rubbed quickly over the body and limbs while standing in the warm water, will answer a good purpose in the absence of other means. Bathing is most frequently neglected in winter, the time of all others when the invigorating effects of the bath are chiefly needed to *fortify the system against colds*.

Cautions in Bathing: No full bath should be taken within two hours after a substantial meal. A certain amount of vital power is required to promote reaction; and after a full meal the

sum of the bodily forces is drawn to the stomach, to assist digestion, and if the vital power be divided between digestion and reaction neither can be completely performed; thus injury instead of benefit is the result. Severe mental strain or any strong passion being excited, immediately before or after the bath, is also harmful.

The True Test: According to Dr. A. Bryce, the *temporary* reaction, after a cold bath, is only *half the battle*. He tells us that "the true test, as to the bath being suited to the individual, is that he feels this healthful glow all through the day, and that many, even of those who experience the first glow after the cold bath, yet become chilly, *some hours afterwards*, but, not suspecting the cause, they continue the practise, thus subtracting much nervous energy." This drawback to the bath can be prevented by using tepid water instead of cold.

Baths for the Delicate: For children and the delicate who cannot bear the shock of cold or even tepid water, there is a way of getting the necessary reaction by *hot water followed by tepid*. The normal temperature of the skin is 90° : a hot bath for one minute or less (not more) at 100° or 105° warms the skin to that temperature. This should then be followed by a quick

douche from a big sponge, with tepid water, over the whole body, say at 70° or 80°; thus obtaining the necessary reaction and closing the pores of the skin, without using cold water. If this is followed with rapid drying while standing in the warm bath, a warm glow over the entire surface of the body should be the result. Once a week is often enough for using soap on the body; when it is employed, it may be followed, after thorough drying, by an application of a little olive oil to the whole skin-surface, this being well rubbed in with the palms of the hands. If shivering or any chilly feeling is the secondary result of a bath, it has done harm.

SPECIAL PREVENTIVES

Never habitually sit with the back to the fire — a most dangerous habit — causing susceptibility to colds.

Cold feet, on going to bed, is a frequent cause of colds.

Avoid going suddenly out of doors after breathing vitiated air and without sufficient extra clothing or exercise to prevent getting chilled. Also keep the mouth closed and breathe through the nose.

Avoid coddling: also avoid overheated or unventilated rooms, which only fit one for taking cold. (See Chapter V.)

Outdoor morning air: There is something in breathing *the early morning air* which invigorates for the whole day, and which renders all the active organs of the body freer to act, and to perform their functions.

When hungry, or tired, one must take more than usual care to avoid any cause of colds, because the vital powers are then lower and less capable of resisting morbid influences.

A glass of cold water drunk slowly, on first getting up in the morning, when not taking the morning bath, is a good preventive of colds, as well as an effective method of regulating the bowels.

When becoming chilled out of doors, a brisk walk for half a mile, before coming in, is highly invigorating, and will often save one from taking cold; otherwise, one should keep on the overcoat and *avoid the fire* or overheated room for a while until a good circulation is obtained.

A flannel band about ten inches in width should be buttoned round the abdomen, every day in winter, by all delicate people, and by *all above middle age*, as it promotes digestion and tends to keep the whole body warm, with freedom from colds.

Moderation: It is a mistake to continue the usual hearty eating which tends to prolong a

cold, and to prevent the simple remedies from taking effect; the appetite must only be indulged with moderation, and the stomach should not be filled; none but the most digestible and nourishing foods should be eaten, and meat should generally be avoided, during a serious cold.

SIMPLE HOME REMEDIES FOR COLDS

Very effective if begun at the first onset.

Promoting Reaction: A hot-water or "lamp-bath" taken as soon as possible after a chill or cold has been received will generally throw it off. Any other method by which the action of the skin is promoted, and perspiration freely induced, without fatigue, will be as effective; a brisk walk till the whole body is in a state of perspiration will often entirely throw off a cold. Care must be taken to avoid any exposure to cold while the body is in this state. Placing the feet in hot water with mustard, and followed up by taking gruel, will help the action of the skin, during the night, or while in bed.

Gargling and Inhalation: Gargling the throat with Cond's Fluid, diluted according to the directions, or dusting it with sulphur powder, is a most effectual remedy for sore throat of the ulcerative kind. A steam inhalation is also a most effectual remedy for a cough, or bronchial

attack, especially if attended with fever; in the absence of a special apparatus, the steam from an open vessel of hot water may be inhaled for ten minutes — inhaling through the mouth and exhaling through the nose; a few drops of eucalyptus oil or Friar's balsam dropped into the hot water will aid in the good effects; a towel put over the head will confine the steam.

For a Cold in the Head: "Ordinary table salt, when rubbed up thoroughly in a mortar with some inert powder, such as sugar of milk (one spoonful of the salt to eight spoonfuls of the powder), and given in doses of about one-third of a saltspoonful, dry on the tongue, at intervals of half an hour, a few times, will bring about a remarkable cure." Dr. J. H. Clark states that some of his patients who tried it declared that they never before got rid of a cold so quickly.

The Dry Cure: Doctor Romme, of Paris, advises an infallible cure for colds. It consists in abstaining from all liquids throughout a period of twenty-four hours, or forty-eight, if necessary, starting from the time when one first begins to feel irritating symptoms of a cold in the head. This cure is more rapid if the patient breathes freely in the open air. A spoonful of fluid in the morning, and a wineglassful of water

at night is permitted. Soups are forbidden. This is a very old but safe remedy.

Essence of Cinnamon: This is the best germicide and antiseptic as a preventive or cure. Pasteur, the great French bacteriologist, gave it pre-eminence. Immediately on feeling symptoms of having contracted a cold, 15 or 20 drops should be taken in water every two hours for the first twelve hours, and afterwards less frequently till the symptoms disappear. But this, like all other remedies for colds, should be begun at once, in order to prove effectual. At the same time, frequent deeply drawn sniffs may, with advantage, be made from a carbolized smelling-bottle.

Camphor: This is another efficient remedy; the form most convenient being the camphor pills. One of these taken every twenty minutes for an hour will generally prove completely effective; but here, again, this remedy is entirely useless after a cold has got a thorough hold of the system.

If the advice on breathing pure air, day and night (Chap. V), could always be heeded, colds, and their *serious consequences*, would be vastly lessened; for example, Pneumonia supervening common colds, which carry off so many, especially of the aged.

“Of all things, the most I would have you beware
Is the breathing the poison of *once-breathed air*.”

CHAPTER XIV

ONE HUNDRED AILMENTS¹

CAUSE, AND PREVENTION, WITH HOME REMEDIES

"An ounce of prevention is better than a pound of cure."

"We are doubly armed if we can apply our knowledge of the Laws of Life to the prevention of disease."

— W. T. FERNIE, M.D.

We must again here repeat the old adage "that Prevention is better than Cure." Those who obey the Laws of Life and Health, as we have attempted to explain, should be largely able to resist diseases. All are, however, more or less liable to encounter some of the complaints herein dealt with and the information should therefore prove of much service.

Prevention: Sir Horace Plunkett, F.R.S., has said, "Coming to the practical application of the thoughts arising from my Battle-Creek experience, I have urged that the public and the medical profession should agree that the

¹ This chapter is by no means meant to do away with medical advice, so essential in all serious cases; still the great majority of common ailments here included may be prevented, or safely dealt with, at home, by the advice herein given, and which is by high medical authorities.

function of the Physician, as an adviser in the Maintenance of Health and the *Prevention of Disease*, should be recognized far more than it is."

Abscess: A collection of *matter* or *pus*, due to inflammation of the tissues. This may be caused by a blow, or by impure blood.

Treatment. — Poultices, or hot fomentations, should be applied every two or three hours until the abscess bursts. When it shows no tendency to come to the surface a surgeon should be consulted, lest it burst inwardly. When open, wash with Condyl's Fluid and water.

Acidity of the Stomach: Sour eruptions, the result of indigestion. *Causes.* — The food, from dietetic errors, is decomposed and forms an acid wind, which rises into the mouth. *Treatment.* — There are alkaline substances, such as carbonate of soda, which afford some relief, by neutralizing the acid, but they are not preventives, and the relief is only temporary. The wise course is to ascertain and avoid the cause, whether from eating too rapidly or too much. Eight or ten small sips of cold water, swallowed, with a short breath between them, will often instantly correct the acidity, and (with proper attention to the diet) prove an effectual preventive against a return of the trouble. Re-

markable cures have been made by this simple remedy.

Acne: An affection of the skin characterized by "black-heads" and pimples, formed by swelling about the oil glands of the skin. The secretion having been pressed out with the end of a watch-key, wash with hot water, and rub with towel or pumice-stone.

Adenoids: Soft, spongy growths in the throat close to the back entrance of the nose, commonly occurring in childhood. *Causes.*—Exposure to unhealthful and unhygienic surroundings, anæmia, and a strumous condition of the system. *Symptoms.*—Frequent colds, catarrh and sore throats, mouth-breathing, snoring, and a thick nasal voice. Deafness may occur from spreading of the catarrh to the middle ear, and the child frequently suffers from night terrors and is backward mentally; the face acquires a vacant expression from the open mouth and tight nostrils. *Treatment.*—Removal by a surgeon, followed by breathing exercises, is generally the best treatment. The operation is not serious, and the immediate improvement in the health, well-being, and cheerfulness of the child is often very marked. (See Polypus.)

Ague: This complaint is frequent in marshy districts, mostly appearing in paroxysms of a

burning fever and cold shivering, on alternate days. General debility is often the predisposing cause, but miasm, stagnant water and decaying vegetable matter are the main existing causes. *The prevention* consists largely in avoiding the above causes, as far as possible, especially the avoidance of the marsh effluvia in the evening and at night. As to treatment, medicines had better be given under medical advice.

Alcoholism arises from the excessive use of intoxicating liquors, which leads to serious changes in all the tissues and organs of the body, especially in the liver, kidneys, stomach, and heart. The nervous system is poisoned, the intellect deteriorates, and the person suffers from loss of intellectual power. It is frequently an actual chronic nervous disease, and sometimes a very obstinate one, and likely to lead to other serious complaints. (See Chap. IV.)

“According to recent scientific opinion it is not impossible that the belief in strong drink, and the supporting qualities of alcohol, will become as obsolete as the belief in witchcraft.” So says *The Times*.

Anæmia: A deficiency of the red corpuscles of the blood; it is especially frequent in young women and youths. *Causes.* — Want of pure air and light, insufficient outdoor exercise, un-

suitable food with too much meat, late hours, or excessive smoking; but we have it on high medical authority that constipation (the most pernicious of common ailments) is a more frequent cause than all the others combined, and it should go without saying that unless this cause is removed, a cure can scarcely be expected. (See p. 102.) *Symptoms.* — Headaches, neuralgia, loss of appetite, indigestion, palpitation, shortness of breath, and lack of energy. *Treatment.* — Much benefit can be obtained by avoiding the causes mentioned; taking nourishing and easily digested food — with but little tea; living and sleeping in well-ventilated rooms and avoiding fatigue.

Angina-Pectoris, or “Breast-pang”:—These attacks are very sudden. A fatty heart or defective circulation are common causes. The inhalation of the vapors of nitrate of amyl, from a handkerchief, generally affords quick relief, and those liable to this trouble should always have a capsule of this drug with them, outdoors as well as in, for breaking into the handkerchief and inhaling. Excitement, over-exertion, and indigestible food must be avoided by those subject to this dangerous ailment.

Ankle Sprain: The wearing of high-heeled boots, which displace the base of support for the body, is a frequent cause of this accident.

The Treatment consists largely in keeping the affected part completely at rest for a sufficiently long time; and this is true even in the least severe cases. The patient should be kept in bed, or at least in a horizontal position, and on no account should the foot be allowed to touch the floor. In most cases the ankle should be firmly bandaged, and complete rest must be maintained, as long as there are signs of inflammation.

Appendicitis, inflammation of the vermiform appendage, situated just at the commencement of the ascending colon. *The symptoms* are generally a pain in the right groin, constipation, nausea, and a high temperature. "This disorder," Dr. Fernie tells us, "is mainly caused by foul and foetid lodgments of corrupt food products within the intestinal tract."

Sir W. Macewen says the "standing lunch," eaten against time, with a mind fully occupied, and the food washed down with some fluid, is one of the frequent ways of producing indigestion and mischief in the appendix. Sir James Crichton Brown, M.D., says: "The increase of Appendicitis is largely due to Indigestion, resulting from imperfect mastication of our food." The attention of a medical man is indispensable.

Asthma: Patients subject to asthma often

live to old age, probably through the care they are obliged to take of themselves; but the complaint is frequently associated with other diseases, especially chronic bronchitis. The *Symptoms* are spasmodic attacks of difficult breathing, coming on in paroxysms and leaving the patient fairly well in the intervals. *Causes*. — Late suppers, indigestion, nasal disease, lung affections, irritable nerves, worry, and sudden changes of weather. *Preventive Measures*. — The known causes must be avoided, also such foods as are found to disagree, more especially late suppers and malt liquors. The *Remedies* are numerous, but should be chosen by medical advice, and by the patient's own experience. The rigid rule of no food after 7 o'clock at night is imperative. A menthol lozenge will be found useful when the breathing is difficult. Decided change in the mode of life has often been found of great service — persons of sedentary habits should adopt a more active life. Plenty of fresh air is most essential, tending to remove the irritability of the nervous system. The most recent American pronouncement by a leading physician is that "No disease in the whole domain of medicine (unless it be rheumatism) is more benefited by a proper diet, or more aggravated by an improper one, than asthma."

Bilious Attacks: These come on more or less regularly at intervals of a few weeks or months. They are mostly the result of some habitual and continuous errors in diet — such as eating too much, or with insufficient mastication, eating too often, or of foods which are not suited to the individual. The effects of such continuous errors, week after week, accumulate in the system till they reach a climax. Nature then attempts to throw off the accumulation, and the periodical “attack,” with its usual distresses, is the result. Habitual constipation is another frequent cause. Headache and *megrim* are often forms of bilious attacks. Exercise and plenty of fresh air will prove most beneficial.

Blisters are collections of water fluid under the outer layer of the skin. *Causes.* — Burns and scalds, chilblains, and the application of counter-irritants. *Treatment.* — Small blisters which cause no trouble may be left alone, and they will disappear by the gradual absorption of the fluid. Larger blisters should be pricked with a needle, which has been first boiled to ensure cleanliness, and the fluid gently pressed out. The part should then be dressed with boracic ointment and covered with a pad of lint kept in place with a bandage. To prevent the feet from blistering on a walking tour, it is

a good plan to soap the inside of the stockings, and wear well-fitting, but not quite new, boots. An excellent lotion can be made for burns, scalds, and blisters, by an ounce of phosphate of iron to half a pint of distilled water. A piece of lint soaked in this lotion should be kept in constant contact with the affected surface and re-damped when dry. (See page 113.)

Blood-poisoning is often caused by a wound-injury from local inflammation, bad drainage, or want of cleanliness; the intemperate, and those who live high, are also more liable. A wound in which matter is formed, and unable to escape freely, may also result in this serious trouble. The late Lord Lister's system of antiseptic surgery has greatly reduced the risk of blood-poisoning in surgical operations. The *First Symptoms* are often a violent attack of shivering, followed by sweating and a rise in temperature; pains in the limbs with thirst and loss of appetite are also common symptoms. The disease is a most dangerous one — recovery depending much upon a robust constitution and skilful surgical treatment.

Blood, Impurity of: The blood, which carries nourishment to all the tissues, removes waste, and distributes heat and oxygen throughout the whole system, is liable to impurities. In its

circulation the bodily impurities are constantly being exchanged for oxygen; and without this interchange, life is impossible. *Causes of Impurity.* — Diminished activity of the excretory organs (the skin, the kidneys, lungs, liver, and intestines), habitual constipation, and any disease of the liver or kidneys and the absorption of poisons through the skin or digestive organs. *Treatment.* — Where such impurity is suspected, the cause must be ascertained and the appropriate treatment adopted under medical advice.

Boils: These are small abscesses in the skin and underlying tissues. They may be caused by debility, or by a faulty dietary, such as one containing an excess of sugar. *Treatment.* — The skin of the affected region should be kept sponged daily with a weak lotion of carbolized water, well protected by smearing it with an ointment of lard (benzoated), so as to prevent repeated self-poisoning by infectious matter from the existing boil, with a probable consequent successive crop of other boils. The health should be kept in good condition, and when boils frequently recur medical advice should be taken, as they may be due to some other ailment. Calcium sulphide promotes resolution, and if taken in one tenth grain pilules — one every four hours,

—especially on its very first appearance, the boil will generally be dispersed.

Breath, Offensive: This may arise from neglected teeth, indigestion, or constipation; and regulation of the bowels will often effect a cure. On no account should it be allowed to go on without the cause being ascertained and the necessary remedy applied, as it is quite impossible that good health can be maintained under such a condition of the breath. Where the trouble arises from decayed teeth it is absolutely indispensable that they be either filled or extracted.

Bronchitis (inflammation of the mucous membrane of the bronchial tubes). — *Acute bronchitis* often originates with a cold in the head, which soon extends to the chest, leading to cough and feverishness, and, unless relieved, it is frequently followed by a *Chronic* condition. The usual *symptoms* are as of a common cold. There may be a shivering fit, tightness at the chest, soreness at the breast-bone, a wheezing in the air-passages, or a general weakness, with a temperature of 100 degrees or upwards. Aged people and children are especially liable to this complaint; and special care must be exercised in avoiding the causes and also in adopting suitable remedies at the very outset. The aged

must realize that they have not the same power of throwing off such attacks as when young, and should never neglect even a slight attack.

Treatment. — The conditions are so varied that early medical advice is essential. This is not a case for braving cold weather, — rather for keeping in bed, and in a warm room, from the very first definite symptoms, when an attack may be easily and quickly checked. Poultices to the chest and a milk diet are advisable. A bronchitis kettle should be used to moisten the dry air of the sick-room with steam, the water being heated either by a lamp or on the fire, and the steam projected into the room. An aperient may be given at the beginning of an attack if necessary.

Bruises: Indicated by discolorations due to rupture of small blood-vessels under the skin, and thereby causing the escape of blood into the tissues. Further effusion of blood should be checked by the application of cold water. An excellent application is made by adding one teaspoonful of tincture of arnica to a tumblerful of water. A pad of lint or a folded handkerchief should be soaked in this lotion, laid on the bruise, and covered with oiled silk. It is not wise to make use of Arnica if the skin is broken — Hazeline is then the proper application.

Burns and Scalds are very common acci-

dents in the home, and much suffering can be prevented by immediate treatment. In slight burns or scalds the part may be covered at once with clean linen soaked with vaseline, boracic ointment, clarified lard (without salt), or olive oil. An excellent household remedy is carron oil, made by mixing equal parts of linseed oil and lime-water. An excellent lotion can also be made by mixing an ounce of phosphate of iron with a pint of distilled water. A piece of lint soaked in this lotion should be kept in constant contact with the burnt surface. The dressing must be kept in place by a bandage over a pad or folded handkerchief, and this need not be removed for two or three days.

Cancer: Dr. Robert Bells tells us that "Cancer is a self-inflicted disease, and the most severe penalty to which man has rendered himself liable. It is," he says, "directly attributable to the contravention of Nature's laws, and is therefore preventable, and cannot possibly establish itself in healthy tissue"; and Sir Lauder Brunton has stated that imperfect mastication of food may even cause cancer of the stomach, through the irritation of the mucous membrane (by unmasticated food).

Carbuncles: These differ from boils in size, being much larger, and far more serious and

painful and more likely to spread; they also have *several* instead of only *one* opening, and are attended with throbbing pain, and some fever. *Causes.* — They are generally due to grave constitutional debility. When they appear on the head or the back of the neck, they are dangerous visitors. They may arise from the same causes as boils, only aggravated; gouty or overfed people are more liable to them, but especially the ill-nourished. *Treatment.* — A surgeon's advice should be obtained at the very beginning; the general health must receive careful attention, with nourishing and easily digested food. Boracic fomentations at the outset are of much service. The lancing of carbuncles is generally advisable.

Chaps are abrasions of the skin occurring on the hands or lips in cold weather. They are mostly due to poor circulation or to washing the hands in hard water and insufficient drying. *Treatment.* — The hands should be plunged into cold or tepid water (after washing in warm), and dried carefully and thoroughly, and glycerine or vaseline should be smeared lightly over them. Any deep fissures or cracks may be painted with a camel's-hair brush dipped in flexible collodion after drying the part carefully. This will afford an artificial skin coating whilst the healing proceeds beneath it.

Chicken-pox: This is a contagious disorder characterized by slight fever, loss of appetite, lassitude, and the appearance of a rash, after about twenty-four hours, on the scalp, neck, back, and chest. The patient is infectious as long as any scabs remain. *Treatment.* — In slight cases a doctor's attendance is probably unnecessary, and the child only requires to be kept warm and free from a chill. A light diet is essential, and hot baths may be given daily. The eruptions may be smeared with camphorated oil to allay irritation.

Chilblains: These troubles generally appear on the toes, heels, or fingers, accompanied by obstinate itching. *Causes.* — A poor circulation or exposure to severe cold. *Treatment.* — The parts subject to the trouble should be protected from cold as much as possible. General warmth of body and limbs may be promoted by rubbing into the skin neat's-foot oil, or wool oil (lanoline). Unbroken chilblains should be bathed every night in tepid salt water. Sir Astley Cooper recommended the following liniment: camphorated spirits of wine mixed with one-half the quantity of Goulard's lead lotion. When chilblains become broken far more care is required in the treatment.

Choking: An accident liable to happen when

eating too hastily. Great discretion must be exercised in dealing with this trouble. If the substance can be reached, it should be pulled away with the fingers. A sharp blow on the back will sometimes dislodge it — the patient being turned on the face, with the head well downwards. The passing of a crumb or a drop of water into the *windpipe* is also termed choking; but this is of a very different nature. In this case a little fluid, swallowed as slowly as possible, with a voluntary suspension of breathing for a few moments, will often give relief by producing a cough.

Colds and Coughs: Dr. J. H. Clark states that table salt highly diluted with powdered sugar of milk is wonderfully remedial for catarrhal colds. Several of his patients who tried it declared they never got rid of a cold so quickly in their lives. (See Chap. XIII.)

Sir Ernest Shackleton, of Antarctic fame, stated that the members of his expedition never caught cold until they opened a bale of clothing which had been packed in England, when they were all affected with catarrhal colds. Those who went out immediately in the biting air lost their colds at once, while those who remained in the hut retained them for days. Other Polar explorers record similar experiences.

Colic: A painful, griping pain in the bowels, sometimes associated with nausea, vomiting, and constipation, or diarrhoea. *Causes.* — The eating of indigestible food, or exposure to a chill. *Treatment.* — If an irritating diet has preceded an attack, a dose of castor oil may safely be given. Heat to the abdomen, by hot bottles or hot flannels, will relieve the pain. When the pain is from flatulence only, two or three drops of the oil of Cajuput on sugar, or in a spoonful of water, will often prove an almost instantaneous remedy, but may be repeated in ten minutes if necessary, or ten drops of essence of peppermint may be given in a wineglassful of hot water.

Constipation: This is one of the most common and most harmful of all human ailments and is also a most frequent cause of anæmia, liver troubles, indigestion, and intestinal putrefaction. The principal *Causes* are: Lack of exercise, overeating, and irregular habits — the walls of the intestines losing their contractive power, causing both constipation and flatulence, and demanding imperative attention and absolute relief from these insidious and health-destroying ailments. Constipation long continued may cause disease of the intestines, by the irritation of the mucous membrane in

the colon. *Treatment.* — Daily brisk walks, slow eating, never overfilling the stomach at any one meal, and a strict, regular, daily habit of relieving the bowels will accomplish a great deal. Figs stewed in oil, other stewed fruits, oatmeal porridge, and green vegetables should form part of the daily food. All drugging must be avoided. It is advisable to drink plenty of water between meals. A glass of hot water night and morning, and half an hour before meals, will often go a long way towards relieving the trouble. If overeating has been a possible cause, the above trial of strict moderation in the diet, for at least a week, and strict regularity as to the daily habit, will probably produce a surprising relief. A due proportion of fats, and fresh butter, and also pure olive oil, if taken freely with salads, or a dessert-spoonful of it mixed with vegetables or porridge at meals, will prove of service. Regular massage of the abdomen (the colon) is very helpful; this is best done by pressing the closed hand firmly into the right groin, moving it *gently* and *slowly* upwards until the ribs are felt, then across the abdomen to the left side, when the left hand may take the downward movement to the left groin — thus following the “ascending, transverse, and descending colon”; this must be con-

tinued for five minutes or more. *Especially in advanced age* the muscular walls of the intestines losing their tone, as above stated, constipation and flatulence tend to add further to the embarrassment of the digestive functions; special attention to the cause and remedies must then be given, as no other complaint is more insidious, or causes more serious detriment to the general health, young or old.

"The pathology of to-day," says Dr. Fernie, "detects 'ptomaines,' or poisons, in the larger bowel when fæcal matters become unduly detained therein, and it also teaches that these poisons are likely to be carried up mischievously into the blood as readily as from sewer gases." Dr. Lauder Brunton also says that "in many persons the mere omission to evacuate the lower bowel in the morning will lead to headache, depression, and languor during the day, this being dependent on absorption of fæcal elements." The lower bowel should be *quite cleared* daily. Intestinal putrefaction, a bane of human existence, is one result of such neglect.

Convulsions: Children are liable to this trouble during their first and second teething, generally due to too frequent feeding, improper food, or to worms, or too little outdoor exercise. As convulsions are dangerous and may prove

fatal, a doctor should be speedily summoned. *Treatment.* — The child may meantime be placed in a hot bath for ten or fifteen minutes, the water being kept at 98° Fahrenheit. At the same time cold wet cloths must be applied to the head. When removed from the bath he must be carefully dried, and put into a warm bed. A gentle aperient of tasteless castor oil may be given as soon as the child is sufficiently recovered to take it.

Corpulence: See obesity (page 133).

Coughs: Steam fomentation is a most effectual remedy for a cough, or bronchial attack, especially if attended with any increase of temperature; the steam from an open vessel of hot water may be inhaled for ten or fifteen minutes — inhaling it through the mouth and exhaling it through the nose. It is best done when the patient is in bed; the hot vapor soothes the membrane, and allays irritation.

Cramp: A sudden painful contraction of a muscle, mostly affecting the ankles or calves. *Causes.* — Cold, over-fatigue, poor circulation, poor blood, disordered digestion, and hearty suppers. *Treatment.* — Massage with soap liniment, or camphorated oil, will remove the pain. Attention to diet, warmth, and rest, with flannel worn next the part, will tend to

prevent cramp in those who are susceptible to it. Movements tending to stretch any contracted muscle will often overcome the spasmodic contraction. When cramp is in the calf, the drawing up of the toe of the foot as far as possible will generally give immediate relief.

Croup — including *False Croup* — is a spasmodic condition of the larynx, usually caused by catarrh. *True Croup* (or “membranous diphtheria”) is a much more dangerous malady. *Causes.* — Cold, teething, worms, and digestive disorders are the chief causes of *false croup*, whilst in *true croup* the diphtheritic bacillus or microbe is always found in the throat and windpipe. *Symptoms.* — The child is feverish, restless, and apparently suffering from a slight cold. He is hoarse (a most unusual thing for a young child), breathes with difficulty, and the cough gradually becomes “crowing” or ringing in its sound. A doctor should be summoned at once, but meanwhile much can be done to relieve the condition by domestic remedies. *Treatment.* — To a child of two years or thereabouts an emetic of half a teaspoonful of ipecacuanha wine (which should be kept in every household), mixed with a little warm water and sugar, may be given and repeated every five minutes until he *vomits freely*. A warm bath

may be given, and the child put to bed in a warm room. At the same time a sponge wrung out of hot water should be applied to the neck in front, and renewed frequently. The air of the room must be kept moist and warm by steam from a bronchitis kettle. An ordinary kettle will answer the purpose (if the former is not at hand) by fixing a roll of oiled brown paper on the spout, so as to direct the steam into the room.

Cuts and Abrasions: A clean cut need only be dried, the edges pressed together, and brushed with collodion or iodine, or "*new skin*," which forms an artificial skin or protective covering. An abrasion can be similarly treated, or dusted with boracic powder, covered with a piece of lint, and a bandage. Rough cuts require a "wet dressing." The simplest is obtained by squeezing a piece of boracic lint out of cold water and laying it on the part. This should be covered by a piece of gutta-percha tissue or oil silk which overlaps the lint all round, and thus acts as a waterproof covering over the wet dressing. A pad of cotton wadding and a bandage complete the dressing, which should be renewed once in twenty-four hours. In an article in *The Lancet* it was pointed out that "Though surgeons know the

value of Tincture of Iodine, for rendering wounds surgically clean, the public have not yet learned it. They ought always to have a bottle of it at hand; and its prompt use might prevent many a cut or wound becoming the breeding-place of dangerous germs. It is not poisonous or harmful, and can be applied without preparation."

Diarrhœa: Errors in diet are the most common cause. This is Nature's effort to get rid of what is thus harmful to the system. Over-eating or taking unripe fruit are the usual dietic causes. A chill, over-fatigue, the inhalation of sewer gases or emanations from decaying matter are other causes. *Treatment.* — The cause should first be found out and dealt with. The very simplest diet must be given; Milk and soda water, or milk (with one-eighth part of lime-water added), taken exclusively for one day, will often prove a complete cure. Tincture of catechu (or an aromatic confection powder) is a very safe remedy and does not leave bad results. Those who have a tendency to diarrhœa must be most careful in their diet, must guard against fatigue, and wear warm woolen underclothing and a flannel belt around the abdomen and loins. Repose of body is very essential.

Diphtheria: This is a highly infectious and dangerous disease characterized by a mem-

branous exudation or "growth" about the throat, with general symptoms of ill-health. *Causes.* — The direct cause is a special bacillus or microbe; but unhygienic surroundings and general debility predispose to it. The disease generally comes on gradually with lassitude, loss of appetite, and sore throat. The temperature is raised, and the throat on closer examinations shows creamy patches. These, which are not confined to the tonsils, gradually extend, and the glands at the angle of the jaws become swollen. *Treatment.* — A doctor should always be in charge of so serious a complaint. The domestic treatment consists in good nursing, on the lines advised for other fevers.

Dyspepsia: Severe and chronic cases of indigestion are generally termed dyspepsia. The old saying of the famous Abernethy seems as true now as when he said it, namely: "No man will attend to his digestive organs until death stares him in the face." This disease is of a stomach which has more work imposed upon it than it can accomplish, and hence it gets out of order, and refuses to work at all. Man is the only animal that eats when he is not hungry; he also eats more than he needs; and dyspepsia is the result of such practises. The origin of dyspepsia in adults not unfrequently dates

back to childhood, when the stomach is permanently injured by improper feeding. *Treatment.* — The proper treatment is mainly dietetic, and exercise — preferably out of doors. The patient must avoid drugging, and must eat such food as can be easily digested, and must exercise moderation in his manner of eating. Different conditions require different treatment, but the above are indispensable measures. (See Indigestion.)

Earache: Earache may be due to neuralgia, from decayed teeth, or to catarrhal inflammation of the middle ear, which is common after measles, scarlet fever, diphtheria, and other fevers. It may also be caused by the irritation of pins used to cleanse the ear from wax (a dangerous practise) or to foreign bodies getting into the ear. *Deafness:* Wax in the ear is a frequent cause of partial deafness. It can be easily removed by gently syringing, which is more safely done by a medical man.

Eczema: An irritating inflammation of the skin. Any part of the body may be attacked. *The Causes* are very numerous; general and local: A gouty tendency, too much salt, excess of food, indigestion, habitual constipation, a sensitive skin, anything tending to local irritation, too tight woolen clothing, too much warmth

to any part, varicose veins, general debility in adults, teething or worms in children. *Treatment*: Plenty of fresh air is very important. The bowels must be most carefully regulated. The affected part should be seldom washed, and not with soap and water, but with creolin lotion. Half a teaspoonful of creolin should be added to one pint of water, preferably soft water, and the lotion applied by clean lint. "As to diet in eczema," says a high medical authority, "no one law is applicable; but in young people and children an exclusive diet of milk, well diluted with water, often works marvels. For the middle-aged red meat, acid fruits, and spiced or salted foods are inadmissible; in old and weak constitutions a generous diet is sometimes necessary, but at all ages total abstinence is indispensable." A famous London physician told a patient that his eczema was the best friend he had in the world (doubtless tending to prevent other ailments). The juice of half a lemon taken daily in warm or hot water is often beneficial. A change of air, especially from low lands to mountainous air, often works wonders. For moist or "*weeping Eczema*," lotions should be used, and for dry affections, ointments (such as Boracic Acid Ointment) are suitable; these must be *gently applied*, but not rubbed in; and

all scratching must be avoided, as only making matters worse. To allay itching Friar's balsam or Hazeline will be found very serviceable.

Epilepsy: Restriction to a diet of farinaceous foods — milk, fruit, and vegetables — has resulted in a decided diminution of the frequency and severity of the attacks. Strong tea and all alcoholic drinks must be avoided. Sleeping in a well-ventilated room is also highly essential. (See *Hysteria*.)

Erysipelas: This is a serious contagious skin disease accompanied by an increase in temperature and delirium. It is caused mainly by a special microbe, and is generally the result of some wound or breaking of the skin. Adults and especially intemperate people are the most liable to this complaint. *Treatment:* A daily aperient, mild cooling diet are essential. Sir Erasmus Wilson advised special quietness and a moderate temperature in the bedroom, and that the instructions of the medical man should be scrupulously carried out, in every particular, as the complaint is a dangerous one.

Eyelids, Inflammation of: *Styes* are small boils in the glands of the eyelids at their edges, indicating some delicacy of constitution. *Treatment:* Boracic ointment or yellow ointment will sometimes cut them short.

Fainting: The most frequent causes are excess in eating, long fasting, overheated rooms, violent emotions of the mind, or heart disease. The ordinary symptoms are paleness and weak pulse. The patient should be placed in a horizontal position. Sprinkling cold water on the face and freely admitting fresh air, and giving a teaspoonful of sal volatile are among the chief remedies. A fainting fit may last a few minutes, or possibly for an hour.

Feet Blistering: To prevent this trouble, Major Simpson states: "A method for hardening the feet, adopted by shepherds in the Scotch Highlands, is a hot alum foot bath — a weak solution of alum. The feet should be soaked in this for ten minutes at night and next morning the socks should be smeared with soap. This alum bath need not be repeated more than once or twice. The result is a foot which does not blister."

Flatulence: A collection of gas in the stomach or the bowels, through the fermentation of improper food, overeating, or too much fluid with meals. Besides, disease microbes multiply rapidly in any vitiated air. *The Treatment* is mainly by reforming the diet. — Thorough mastication, eating *dry meals*, and drinking hot water one or two hours after meals and half

an hour or an hour before, will often expedite the cure.

Gout: This is a constitutional and often hereditary disease, associated with excess of uric acid in the blood, accompanied with periodic attacks of pain and inflammation in the joints. *Causes:* The disease is most common amongst elderly men accustomed to heavy meals and a liberal allowance of wine (especially sweet wines) and malt liquors, which contain a high percentage of sugar-fermentative. Excessive indulgence in animal food, and rich meals, with sedentary habits and insufficient muscular exertion, will frequently bring on an attack in those who are at all subject to it. Worry, excessive mental and nerve strain, are also common factors. *Prevention:* Rigid dieting, simple fare (not eaten hurriedly), plenty of water, preferably sipped hot (especially the first thing in the morning), combined with regular outdoor exercise and regulated daily tepid bathing, sufficient to keep the skin active. Gout is the disease specially known to be associated with uric acid, and therefore foods must be avoided which contain that substance in excess. Professor Bryce says: "Avoid starches, sugar, and other foods which undergo acid fermentation in the digestive organs, such animal

foods as contain uric acid in abundance, especially liver, kidneys, sweetbread, asparagus, and mushrooms. Moderation as to the quantity of food to be taken should be a primary object, and at no meal should the stomach become really full. A fruit and vegetable diet, now justified by scientific research, is essential. Cherries, and strawberries (when they agree), and grapes taken daily will largely reduce gouty uric acid."

Treatment: During an attack a milk diet should be adopted, and an aperient should be given at the first onset. Other medicines should be ordered by the physician. The affected joint should be wrapped in cotton-wadding and kept at rest. It is most important to keep the part warm, and to guard against contracting a chill. Careful diet must be given during convalescence, as injudicious eating may bring on a relapse. Bread and milk, light puddings, gruel, barley water, and baked apples are all suitable foods. Sugar of milk (lactose) acts as an efficient and almost tasteless laxative; from one to two teaspoonfuls of this sugar in powder should be dissolved in warm water or milk, and taken in the morning, on an empty stomach. It has also a curative action in overcoming chalky gout if taken continuously, one tea-

spoonful twice a day, mixed with two table-spoonfuls of water, at or immediately after meals, and at night.

Gall-Stones: These are stony formations in the gall-bladder, seldom occurring before thirty years of age. The cause is similar to that of gout. The symptoms are a sort of spasm or severe and intermittent pain in the right side of the abdomen, just below the ribs. The *Treatment* should be in the hands of a medical man.

Gastritis: (inflammation of the stomach). *Cause:* errors in diet — too much or unsuitable food, or hasty meals. *Symptoms:* burning or gnawing at pit of stomach, tenderness on pressure, increased by taking food, which often causes vomiting, followed by dry retching or much thirst, no desire for food, constipation. *Home Treatment:* in the mild form: Perfect quietness in bed, no food for some hours, giving stomach perfect rest, and then only liquid food should be given.

Gravel: A muddy state of the urine, depositing a brick-dust sediment, may be a sign. This trouble depends more upon derangement of the liver and stomach than of the kidneys. Those who suffer from gravel or gall-stones should avoid sweet wine, malt liquors, sweets of all

sorts, and indigestible food, and take plenty of outdoor exercise.

Hay Fever: A distressing malady, affecting the mucous membrane of the Bronchial tubes. It appears in summer, mostly at haymaking time, and comes from the pollen of certain plants. Those subject to the complaint should therefore avoid these causes as far as possible. It is less prevalent in the center of large towns.

Precautions: It is best for the patient to remain indoors in the middle of the day, and avoid the bright sunshine. Respirators are often of much service, also placing wool or cotton in the nostrils. Removal from the pollen influence, for the time, is the best preventive.

Headache: *Causes:* Excessive nerve and mental strain, worry, overeating, bolting of food, constipation, and lack of exercise. The trouble is often due to the circulation of numerous poisons or "toxins" in the blood, which are absorbed from a disordered digestive tract, producing what doctors call "high blood-pressure" with a general feeling of ill-health. Thus nerve strain and digestive disorders are the main causes of ordinary headache. A third cause is "eyestrain," from long sight, or astigmatism, which indicates that the muscles of accommodation are undergoing a strain in the

effort of focusing objects. These headaches can generally be cured by suitable glasses, the sight being first tested by an oculist. Headaches in children must never be neglected as they may indicate approaching brain trouble. *Treatment:* The most sensible procedure is to find out the causes, and deal with them. The headaches of nerve strain must be counteracted by judicious rest, by quiet and method in the daily life, and the avoidance of worry. The digestive headache must be dealt with by careful dieting, easily digested meals, eaten slowly, also fresh air, and outdoor exercise. Sedative drugs must be avoided, as they only aggravate the condition. *Domestic remedies* for temporary relief comprise rest in a darkened room, a hot-water bottle to the feet, cold application to the temples, or the top of the head, and a mustard leaf to the nape of the neck. Some forms of headache are easily checked by daily massage of the scalp, consisting of moving the scalp back and forth on the bone, with considerable pressure.

Heart Diseases: People often imagine they have Heart Disease when they have not. *Symptoms:* Pain in the left side, Palpitation, Blueness of the face and lips, Difficulty in breathing and irregular pulse. But it is a *Combination* of such symptoms, rather than any of them *singly*,

that would indicate real heart disease. Medical men tell us that in nine cases out of ten a pain in the side only signifies neuralgia, and that palpitation alone, though often causing alarm, generally arises from stomach trouble and not from the heart. A knowledge of these facts should allay misapprehension.

Dr. S. Goodall tells us that: "Roughly speaking, every time the heart contracts it does enough work to raise a 2 lb. weight, one foot high; and if the heart muscle is anæmic or is the seat of disease, heart-strain is easily produced. For example, in ascending stairs quickly, or by getting in a rage, heart work may be increased nearly double. Therefore 'Keep your temper' is good advice."

Dr. Schofield reminds us that "The heart sits on the end of the stomach; and when the stomach is distended in any way by food, it often causes palpitation, the heart getting the blame, but the stomach being the culprit."

Real heart disease is too serious a matter for home treatment, and the patient requires a special examination to be made by a medical man.

If we do not exercise our bodies, the heart may become weak. When one is lying down, the heart has only to move the blood on a hori-

zontal plane; but when one is standing, the heart has to circulate the blood vertically, with a far greater amount of work. *Valvular disease of the heart*, we are told by medical men, does not necessarily shorten life, and a doctor has collected a list of some hundred cases who have lived to over eighty, in good health with such valvular disease.

Herpes or Shingles: This serious complaint is generally an inflammation of the great "intercostal nerve trunk." It is characterized by a painful eruption of flat vesicles. It is generally limited to one side of the body only, and extends in a narrow strip horizontally from the spine around to the middle front. The *Causes* are: a low state of the system, a severe cold, a blow to the part, or from too little nourishing food. *Treatment.*—The general health and strength must be improved, in every possible way. The inflamed part must be protected from the air. General warmth must be maintained and great caution exercised against taking cold. The further treatment should be in medical hands.

Hiccough: An almost infallible cure for this trouble is to take a teaspoonful of fresh lemon juice, or vinegar, or one or two drops of the oil of cinnamon on a lump of sugar.

Hysteria: This strange and troublesome af-

fection consists primarily in the loss of control over the emotions. *Hysterical fits* usually come on after much fatigue, and often with a sense of faintness, but the patient generally retains sufficient consciousness to prevent injury by falling. *Treatment*.—The attacks may generally be cut short at the start by firmness with kindness, and by sprinkling a little cold water in the face. *Prevention*.—The patient's time should be occupied by some healthful and interesting exercise with plenty of fresh air, so as to keep the thoughts from the ailment. (See *Epileptics*.)

Indigestion: Really a process of "auto-intoxication" by poisonous products (which are being formed mischievously in the stomach and bowels) being absorbed into the blood, producing irritation of the brain and nervous system, with consequent depression, irritability of temper, and headache. *Causes*.—A leading medical authority has said: "Nine out of ten cases of indigestion, so called, are not indigestion at all, but errors of diet:—Insufficient mastication of food, bad teeth, hurrying over meals, overeating, overwork, constipation, and nerve strain. Indigestion is mostly a message from the stomach, that it objects to the quantity or quality of food swallowed. If this warning is not heeded, the stomach takes steps

to make itself heard, by further and stronger methods of protest. The usual symptoms are a sense of weight and pain after meals, nausea, water-brash or heartburn, from acidity, a bitter taste in the mouth, foul breath, and coated tongue; constipation is also sometimes a symptom and a frequent cause." *Treatment.*—Careful attention to diet (quality and quantity) is, in all cases, the first essential. Three simple meals a day at most, and at regular stated hours, with no solid food between, will provide sufficient intervals for the complete digestion of each meal, before the next one is due. *Mastication of all food must be thorough and complete.* Regular outdoor exercise is essential. Five miles' walking exercise a day (always within the point of fatigue) is excellent. Exercise gets rid of waste products from the body, and improves appetite and the capacity to digest food. Rest for mind and body, for half an hour at the conclusion of each full meal, is also a great aid to digestion. Any constipation must be corrected by diet and exercise. A cheerful habit of mind will go a long way towards improving the digestion, as well as the general health. (See *Dyspepsia* and *Constipation*.)

"Infantile Cholera": Dr. Forbes Ross states that salt water will cure this complaint. In

very hot weather the infant perspiring, day and night, tends to deprive the blood of its salt. A salt-cellar of salt in a glass of water, and a tea-spoonful given at frequent intervals, will, the Doctor states, effect a cure in a very few hours and that many infants' lives have been and may thus be saved.

Influenza (la grippe) is an infectious fever attended by great prostration. It is believed to be due to a specific microbe. One attack is no protection against a second; and it spreads very rapidly from one person to another. It often begins with shivering, redness and watering of the eyes, or sore throat, high temperature, great prostration, and severe pains in the back and limbs. Sometimes the respiratory system is mostly involved, and bronchitis and pneumonia may ensue. *Treatment.* — The patient should keep in bed, to maintain the strength, and avoid complications. A gentle aperient may be given at the beginning of the attack, but it is desirable to consult a doctor, especially when elderly people or young children are attacked. Relapses must be guarded against by avoiding exposure to a chill and by further infection. Important points are not to go out too soon, nor to take a bath till the strength is restored.

Insomnia: This should never be considered as a trifling matter and thus neglected; it demands early and most careful attention. "Insomnia begets insomnia" has been truly said. It is very often the forerunner of some serious brain trouble, therefore if it persists after ordinary care, a doctor should be consulted, especially if the cause is other than from an overtaxed brain.

Intestinal Putrefaction: This ailment is a most frequent and unsuspected cause of much ill-health, particularly in advanced age. The arteries become hardened and inelastic, preventing due nourishment being conveyed to the various parts of the body, thus causing the general wearing out of the tissues. All this, Metchnikoff tells us, is increased by the absorption of poisonous matter from the bowels. Therefore by preventing this ailment we delay the process of calcareous degeneration of the blood vessels and thus retard the advance of senility. *Prevention*, here, is the great desideratum, and modern authorities, including Metchnikoff, agree that this condition is the result of errors in diet, overeating, bolting food, and excessive consumption of meat, thus suggesting the remedy. Dr. Herschell, in his book on *Lactic Ferments*, expresses his belief that one

of the chief causes of the great prevalence of Intestinal putrefaction is the excessive use of animal food, and Professor Metchnikoff expresses similar views. (See *Flatulence*.)

Jaundice: A yellow discoloration of the skin occurring in disorders of the liver. When the bile duct is blocked, by catarrh or other obstruction, the bile cannot pass into the intestine, and passes back into the blood instead, causing a yellowish sickly deposit in the skin, the whites of the eyes, etc. *Other Symptoms* are: Constipation, from lack of the natural laxative (the bile) depression of spirits, sick headache, lack of appetite, and digestive disorders. *Treatment*.—Light milk diet with gentle aperients suffice in slight cases. A useful home remedy is stinging-nettle tea (made by pouring hot water upon freshly cut nettles). One tablespoonful of this infusion may be taken every two hours. (See *Liver Complaints*.)

Kidney Troubles: The kidneys are the organs which secrete the urine, and from which the urine is constantly dropping into the bladder. *The Causes* of kidney troubles are intemperance, excessive flesh eating, gout, heart disease, constipation, and other ailments. *Symptoms*.—Blood in the urine; scanty or reddish urine; dropsy, apparent in the face, the feet, or other

parts. *Treatment*.— Being a serious complaint, it requires prompt medical treatment. Until this is obtained, Dr. Walters says, “The patient should keep in a warm bed, getting the skin into action, the bowels free, hot poultices to the loin; a milk and broth diet, barley water, and the like. If an exclusive milk diet does not agree (as is often the case with adults), milk may be made the basis of soups, etc. All stimulants and hot strong liqueurs to be avoided.”

Laryngitis: Inflammation of the lining of the larynx. This is a dangerous complaint, because of the liability to suffocation through the swelling of the narrow air passage. Among the *Symptoms* are hoarseness and difficulty in breathing. *The Causes* are taking cold, after a throat trouble, too extensive use of the voice, a violent screaming in case of children, also inflammation of the gums in teething. *Treatment*.— The complaint is far too serious for home treatment, but the patient should be put to bed, in a warm room, and great care taken to prevent further complications.

Leanness: Rapid eating (conducting to over-eating) is a frequent cause of leanness — strange as it may seem. The remedy is thus apparent: Eat very slowly — in short, swallow nothing till thoroughly masticated. The result will

generally be surprising. Overeating is thus a cause both of obesity and leanness — obesity in some and leanness in others. For thin people who desire to put on more flesh, carbohydrate foods and fat should be taken with meals. Fluids at meals should be taken at or near the end of a meal, rather than at the beginning. All fatigue should be avoided.

Liver Complaints: These may be either acute or chronic. A simple congestion is often caused by catarrh, from a chill or digestive disorder, producing a typical “bilious attack” (*which see*). There are various “chronic” forms of liver complaints, caused by offending agencies, such as alcohol, and other stimulants. By any obstruction in the normal flow of the bile, or any increase in its secretion, an overflow may occur, and the blood become charged with bile, which may reach the stomach, producing serious illness. *Symptoms.*—When the liver is not acting well, the general health at once suffers: with headache, bitter taste in the mouth, furred tongue, sallow complexion, lack of appetite, constipation, irritability of temper, and depression. *Causes.*—A sedentary life, little exercise, rich food, great heat, worry, anger, or a shock, or the habitual use of stimulants. *Treatment.*—The diet should be simple; all rich dishes, highly

flavored foods, and sweets must be avoided. The wisest course is to give up alcohol altogether. Active exercise out of doors must be taken daily, especially such as exercise the abdominal muscles, horse exercise and cycling being advisable. Stewed fruits will help to counteract bilious constipation. A wineglassful of nettle tea each morning, fasting, is especially useful for such liver attacks as are caused by a gouty habit of body. The acid of apples is also of great use, as it serves to eliminate noxious matters from the body.

Lumbago is a pain of a rheumatic nature in the loins. It is a muscular rheumatism which generally comes on suddenly, and with proper treatment often goes as suddenly. It may be brought on by a chill in those who are subject to rheumatism. Muscular strain is also a common cause in people who have to stoop at work or lift heavy weights. The alternate bending and raising of the body very slowly strengthens the lumbar muscles, thus combating the tendency to this complaint. *Treatment.*—In severe cases complete rest is necessary for relieving the pain. The application of heat by a hot bottle or hot flannels is soothing. Liniment of turpentine is a useful remedy; it should be applied on lint. Simple diet, with no meat,

alcohol, or sugar, is advisable, owing to the rheumatic nature of the ailment. Warm under-clothing and the wearing of a flannel abdominal belt will help to prevent recurrence. Malt liquors must be avoided. A flannel steeped in hot vinegar, and (after the superfluous vinegar is wrung out) laid over the affected surface, and ironed with a hot flat-iron, will often prove of service. In chronic cases medical advice is essential.

Measles: An infectious fever commonly occurring in epidemics. If treated as a minor complaint, of no serious import, it is apt to leave weaknesses behind, a common one being deafness. *The first Symptoms* are those of a cold, with general ill-health, rise of temperature, running at the eyes and nose, and sometimes a cough. The rash appears on the fourth day on the forehead and face, the neck and arms, and, later, on the trunk. The spots are bright red, occurring in patches, with a general mottled appearance of the skin. They begin to disappear after a few days, leaving the skin rough, which disappears as the patient gradually gets better. *Treatment.* — Rest in bed in a darkened room, light diet, and isolation should be the rule. Milk, oatmeal gruel, and barley water are suitable fluid-foods while fever continues.

Careful ventilation and rigid cleanliness are essential. It is important to build up the health in convalescence, and to avoid any risk of a chill, as bronchitis or pneumonia may follow neglected cases. The most common, and sometimes fatal, complication in measles is congestion of the lungs. This is indicated by shortness of breath and increase of fever. It should have immediate medical attention.

Mumps: An infectious inflammation of the parotid gland of the mouth; indicated by swellings and pains in the jaw near one or both ears and lasting from three to six days. *Treatment.* — The patient should be kept warm and care taken to avoid a chill. If much pain, apply hot fomentations. The food must be soft.

Nettlerash: A skin eruption consisting of small white lumps surrounded by a reddish blush, and accompanied by itching and tingling. It most commonly occurs on the face, neck, and upper part of the body. *Causes.* — Digestive derangement, as in eating shellfish, cucumber, pickles, etc. Strawberries will bring on an attack of nettlerash in one person, pickles or lobsters in another. *Treatment.* — A gentle purgative and careful dieting are the first essentials. A warm bath will relieve the discomfort, and the eruption may be bathed with lime-water,

or Goulard water. When nettlerash is from teething, the lancing of the gums by the doctor may be needful. Nettlerash in adults is quickly removed by drinking stinging-nettle tea, made by pouring boiling water over nettle leaves.

Nervous Debility and Breakdown: The main *Causes* of this ailment are worry, late hours, (burning the candle at both ends), rapid over-eating, excess in stimulants, and other indulgences which overtax the nervous system. These errors prevent the food from nourishing the system and conduce to chronic indigestion. *Treatment.* — The avoidance of the above causes, proper diet, and outdoor exercise. The greatest error of all in the treatment is the use of alcohol, the reaction of which only increases the mischief. Friction with the flesh-brush employed to *the spine* is highly recommended for nervous troubles; but, for the *spinal* friction the brush should be used briskly, but *with very little pressure upon the spine.* (See Chap. I.)

Neuralgia: A shooting pain in a nerve or a set of nerves. It may affect any part of the body, but most commonly the head and face. When on either side of the chest it is *Inter-costal neuralgia* or Shingles, and when down the back of the thigh, *Sciatica*. An impaired general condition of health has an important bear-

ing on the causation. Overwork, worry, anæmia, rheumatism, gout, and malaria, all predispose to attacks, owing to an unhealthy state of the blood. It frequently follows influenza and other acute illnesses, when the vitality of the body is low, which latter may result from want of sufficient nourishing food. Tumors or other diseases will produce neuralgia, by pressure on the nerves. *Treatment.* — The general health must be treated by hygienic measures. Nourishing diet, with plenty of milk, and also plenty of sleep, are necessary to build up the nervous system. Drugs should never be self-prescribed; a habit of drugging can often be traced to an attack of neuralgia thus treated. Warmth is very necessary, and hot-water bottles, or poultices, will relieve the pain. Menthol and peppermint gently rubbed into the affected part may prove efficacious.

Nightmares: These are mostly caused by errors in diet — indigestible food, or hearty suppers, which should be avoided by those subject to the trouble.

Nose Bleeding: In slight cases there is no necessity to stop the hemorrhage. If it be severe, the patient should remain quiet, and a handkerchief, dipped in cold water, should be applied to the nose and forehead, or hot water,

as hot as can be borne, may be applied in like manner. Holding the nose with the finger and thumb is often effective, and the old-fashioned remedy of slipping a key down the back is not to be despised. In more severe cases it may be necessary to plug the nose with cotton-wadding dipped in a hazeline lotion.

Obesity: This is the condition where the natural fat, or adipose tissue of the body, is in excess. The condition is nearly always accompanied with a weak heart, says a medical specialist. The subject of excessive obesity is very often in danger — a little too much exercise, and his weak or fatty heart fails him, or if he is attacked, even with a minor illness, he is also handicapped by being out of condition, and his recovery is slow, and often uncertain. A tendency to obesity is often hereditary; but overeating, especially of sweet or starchy foods, and insufficient exercise, especially after youth is past, will make for increased girth. Obesity is thus generally a sign that the intake is more than the body requires; and since fat in excess means a fatty heart, wisdom lies in *preventing* corpulence by activity and by moderation in diet.

In regard to the danger of accumulating fat in old age, Sir Henry Thompson, M.D., has said:

“Not one man in fifty lives to a good old age in such a condition; the person past middle age is unable to dispose of the surplus of food as formerly consumed. The typical healthy person of eighty or ninety is lean and spare, and lives on slender rations. A certain amount of storage material, as a reserve should, however, exist, and does exist, in every healthy man, while it is the undue amount of stored nutriment which is so prejudicial in advancing years.”

Treatment. — An important point is to avoid any *sudden* method of reducing weight. With a fatty heart or fatty kidneys, any severe anti-fat methods may throw a sudden and dangerous strain on these organs. Apart from drugs, which should never be taken unless under the direct advice of a doctor, the best methods are diet and exercise. Pastries and confectionery, sugar and starchy foods (potatoes, oatmeal, rice, sago, etc.), should be almost entirely given up. It is from starch and sugar (the “carbohydrates”) that body-fat is chiefly derived; and if these are largely omitted from the dietary, the body draws upon the store of fat already in the tissues for heat and energy; and thus the excessive fat is gradually used up. Exercise should be begun by degrees, for if sudden and severe, it is dangerous in cases of heart weak-

ness. The early morning bath, followed by a brisk rub down, and the use of the flesh-brush, will tone the skin, and help to remove waste products. Dr. Galish, a German physician, says, "If you would lose flesh and attain a normal weight, don't eat a late supper. The digestive processes are at a low ebb during sleep, when fat is accumulated. The heaviest meal of the day should be taken therefore at midday." Too much sleep must be avoided.

Perspiring Hands: These may be much relieved by sponging them with a 2 per cent. solution of formalin, with water.

Phlebitis: The inflammation of the veins. (See *Varicose Veins*.)

Pneumonia, or inflammation of the lungs. This may rise in association with other febrile diseases, such as pleurisy, rheumatic fever, or typhoid fever. It is a microbic disease, occurring at all ages, but is commonest in adult men. The patient is often taken ill suddenly with shivering, or rigor, high temperature, difficulty in breathing, and cough. About the seventh or eighth day there is a "crisis," the temperature, in favorable cases, falling to normal in a few hours. The whole duration of the illness is often two or three weeks. If the lungs are affected for a longer period, tuberculosis or

consumption may be suspected. *Treatment.*— This disease is too serious for home treatment, and a medical man must always be in charge of the case. There is danger of heart failure, and special remedies may be called for at any time. (See page 85.)

Poisoning: Cases of poisoning admit of not one moment's delay; the life of the patient may depend on how the first *minutes* are employed, and in obtaining medical assistance. Mustard, always available, is a suitable *emetic* for many sorts of poison, including opium, laudanum, morphia, sulphonal, tainted meat or fish. For an adult, two teaspoonfuls, or more, of mustard well mixed in a tumbler of warm water, will quickly produce the necessary effect.

Polypus: A fleshy growth from the mucous membrane, usually in the nose. It may arise from irritation, and very often produces bleeding and some obstruction of the nasal passage. A nasal polypus will produce mouth-breathing, day and night, which often causes a vacant and stupid look, with mental dulness. *Remedy.*— A polypus is easily removed by a competent surgeon, and it is always well to undergo the necessary operation, which, in most cases, is a very simple one.

Quinsy (or Tonsilitis): This is an inflamma-

tory sore-throat infection — an inflammation of the tonsils. The exciting cause is probably a special microbe. It is not contagious, and one attack is no protection against another. *The Symptoms* are much varied, the temperature generally rises, and the pulse is increased. One or both of the tonsils become enlarged, swallowing is difficult and painful, the pain often extends to the ear, and the glands under the jaw become swollen and tender. In mild cases, and with proper treatment, the inflammation subsides without a gathering and without very marked rise of the temperature. A mild attack is generally of not more than five to six days' duration, but even in mild cases great caution should be exercised in not getting out too soon. *Treatment.* — The best home treatment is inhalation of hot steam, with a few drops of Friar's balsam dropped into the hot water; the throat should be gargled with glycothymoline (1 part to 5 of water), and a nasal douche of the same will be of material assistance; but it is always best to have medical advice for this serious complaint.

Rheumatism: There are several varieties included under this heading: *Acute*, *Chronic*, and *Rheumatic fever*.

Rheumatic Fever: This is an acute febrile disease due to poison in the blood, probably of a

microbic nature. *Causes.* — Much exposure to bad weather, sleeping in a damp bed, over-fatigue, and depression of the general health. *Symptoms.* — The disease often commences with sore throat and a general feeling of *malaise*, the temperature goes up, and the joints become painful and inflamed. There is generally a profuse sour-smelling acid perspiration; the joints are affected one after another, and are swollen and acutely painful. The disease generally lasts four or five weeks, but relapses are very common, even in convalescence, and must be carefully guarded against. *Treatment.* — This is so serious a disease that a doctor should be in charge of the case. Complications readily occur — heart disease, pleurisy, or pneumonia being frequent. Domestic treatment includes rest in bed between well-aired blankets, fluid diet, and warmth for the inflamed joints, which should be wrapped in cotton wadding. The night-dress, which should be of flannel, must be frequently changed because of the profuse perspiration.

Chronic Rheumatism: This may follow as the result of an *Acute attack*, or it may come on independently, as a result of much exposure to bad weather, combined with excessive fatigue. It is characterized by a general stiffening and swelling of the joints — the hands, arms, and

shoulders being most affected. The general health is not very much impaired by the disease, although the pain is wearing and often constant, being worse in wet and cold weather. *The Treatment* largely consists in applying liniments of turpentine or other such stimulating oils to the tender joints, hot fomentations, to soothe the pain, warm woolen underclothing, simple regular food, and no alcoholic stimulants. Living and sleeping in light, sunny rooms is of the greatest benefit. Meat, especially red meat, should be eaten very sparingly, if at all; and it is claimed that a non-flesh diet, if persevered in, will often effect a complete cure.

Muscular Rheumatism: This trouble usually arises as a result of a chill, or strain to certain muscles. *Stiff Neck* and *Lumbago* are common examples; there is pain, stiffness, and difficulty in movement. *The Treatment* consists in rest, warmth, and soothing applications, or counter-irritants. Equal parts of the oil of camphor and oil of wintergreen, mixed together, make a very useful liniment. (See *Lumbago*.) The use of the flesh-brush is of special value in all cases of rheumatism. (See Chapter I.)

Rickets is a constitutional disease of early childhood attended by softening, enlargements, and other deformities of the bones, especially

of the legs. *Causes.* — Unhygienic conditions, lack of sunlight and fresh air, deficiency of fresh vegetables, excess of starch in the diet, a lack of fats and proteids, or of lime salts. *The Symptoms*, which appear during the second or third year, are those of general ill-health, wasting, and enlargement of the ends of the long bones and swelling of the head. *Bow-legs* and *Knock-knees* are common sequences. *Spinal Curvatures* and other deformities may arise. *Treatment.* — Much depends upon the diet: Starchy foods must be reduced in amount, and plenty of good milk and cream given (to which a little lime-water may be added), but the milk must not be boiled. Fresh air night and day and sunlight are essential, and fresh vegetables and fruits should be supplied freely.

Ringworm: This is a skin-affection of childhood, caused by a fungus parasite. It occurs usually on the scalp. It consists of threads and spores which cling tenaciously to the hair, and are most difficult to destroy. Ringworm is very contagious, and spreads from one child to another. Domestic animals may contract it, and then infect children. *Treatment.* — The affection may persist for many months unless skilfully treated. The hair will have to be cut short, or shaved. Ringworm, in children, can

often be cured by a single application of acetic acid: which, with care, does not stain or injure the skin.

Sciatica is neuralgia of the sciatic nerve down the back of the thigh. The pain is constant, rather than shooting in character. There may be numbness and wasting of the muscles of the leg. *Causes*: Over-exertion and muscular strain, gout, anæmia, and general debility. *Treatment* (see *Neuralgia*).—The patient should be kept in bed, blisters are useful, or a belladonna and chloroform liniment may be applied to the nerve.

Scarlet Fever: This is the most highly infectious of any complaint. It is 4 to 6 days in incubating. The rash appears on the second or third day and fades on the fifth. *The Symptoms* are:—headache, swelling and pain in the throat, with ulceration and what is termed “strawberry tongue,” rash on the chest or neck, which soon spreads. The germs retain their power of infection for a long period. The scales from the convalescent patients contain these germs and great caution is essential in checking the contagion. *Treatment*.—This complaint is too serious for home treatment and should be in the hands of a medical man.

Seasickness: To obviate this distressing

complaint, careful dieting for several days before embarking is very important. The bowels should also be kept gently open, and a light meal taken an hour or two before sailing. All alcoholic drinks and smoking should be given up for some days previously, and during the voyage. By lying down, preferably on the back, with the head very low, and in the central part of the ship, the tendency to sickness is diminished; but to keep on deck is very desirable whenever the weather permits. A mustard leaf to the stomach, and hot bottles to the feet, often give relief. It may seem incredible, but it has often been proved that when sitting on deck and facing the sea, by *closing one eye* seasickness may be prevented, and when both eyes are opened, for a few minutes, the symptoms return.

Sleeplessness (or Insomnia): This may arise from many different conditions: — Over-brain-work at night, mental trouble, strong tea, dyspepsia, heavy suppers, cold feet, and ill-ventilated bedrooms. *The Treatment* should always be undertaken as early as possible, because a confirmed habit of insomnia is very difficult to break off. Avoiding the above causes, careful dieting, and observing the old maxim, “after supper walk a mile,” also brushing the hair for

fifteen minutes at bedtime, will all tend to induce sleep. *Exercising the feet* when in bed, not only warms them, but also tends to relieve the congested brain. This consists simply in pressing the feet together and turning them slowly right and left, and raising and lowering them by bending the ankles; this should be accompanied with slow and deep breathing, and counting the breaths. The use of friction to the whole body at night, from 10 or 20 minutes will soothe the nerves, and tend to induce sleep. Baron Reichenbach, after years of study as to the position of the bed, maintained that "One should sleep with the head towards the Pole (North or South) of the hemisphere in which he finds himself." Invalids and delicate people will be more affected by this cause than those of strong constitution. Charles Dickens, who suffered from insomnia, his daughter tells us, "when having to sleep in a strange room, would always first see that the head of his bed was turned to the north." Trying to sleep often tends to keep one awake: and there is something more than a mere jest in the sensible advice to one who had been trying for hours to get to sleep: — "Just shut your eyes and go to sleep, and forget all about it."

During infancy and the whole period of growth,

insufficient sleep is very detrimental; but adults sometimes harm themselves more by trying to get to sleep than the supposed deficiency would cause them. On the other hand, according to Sir John Sinclair, M. D. (elsewhere quoted), "*too much sleep* tends to render both the body and mind unfit for activity and with a tendency to corpulence, apoplexy and other ailments; still, the victims of nervous troubles should have plenty of sleep for the restoring of jaded nerves." (See Chap. IX.)

Sore Throat: This is often a relaxed or inflamed condition of the lining membrane of the throat. Debility predisposes to the trouble. Rheumatic and gouty people often have a weak throat. Exposure to cold, unhygienic conditions, such as bad drainage, and lack of ventilation, or mouth-breathing during sleep, may cause this trouble. It may also be a symptom of approaching acute infectious disease. Excessive tobacco-smoking and excess of alcoholic liquors are other causes. *Symptoms.* — There may be fever, digestive disorder, and headache, according to the severity of the ailment. *Treatment.* — Smoking and alcohol should be given up, and the voice rested. A French physician (Dr. Fanrel) advises the use of a tea gargle, night and morning, as an astringent for check-

ing sore throat at the outset. Tea containing tannin is most suitable for this purpose. It should be allowed to steep for ten minutes, and the infusion used cold. Glycerin of tannin applied to the throat with a camel's-hair brush thrice daily is also a good remedy.

St. Vitus's Dance: This is a nervous disease of children from five to fifteen years of age. They should be kept from other children who may imitate the action and thus be affected. It is often caused by a fright. The disease comes on by degrees, involuntary motions of the limbs, or distortions of the face. It is not difficult of cure if taken in hand early. *The Treatment* should consist of daily tepid baths, with plenty of friction, by a towel, or flesh-brush, simple but nourishing diet, plenty of outdoor exercise, and especially attracting the attention to other matters.

Stings of Insects: Stings generally introduce a poison, causing inflammation. The wound should be sucked, whenever possible, whereby the absorption of the poison is prevented; no mischief is likely to result to the person who sucks the wound, but the lips should be free from any cracks or scratches. The wound should be carefully searched for the sting, which is generally left in, and this can, in most cases,

be removed by pressing with a watch-key; the wound may be treated with sal-volatile, vinegar, ammonia, or onion juice. Ammonia is efficacious for the stings of mosquitoes and gnats. All scratching should be avoided, as it retards the healing.

Teeth and Toothache: As health depends so much upon the possession of sound teeth, it is best to visit a dentist at intervals of not less than six months, for attention to any decay or defect. *As to decayed teeth* remaining in the mouth of old or young, and unfilled, the wonder is that any degree of health can be long maintained, as the owner of the teeth, in such condition, must be inhaling fetid breath from same unconsciously, though so apparent to others. For immediate relief of toothache a good remedy is to insert a plug of cotton wadding dipped in oil of cloves, or oil of peppermint, into the cavity. Such maladies as rheumatism and indigestion have been traced to the absorption of poisonous matters into the blood from septic roots within the mouth. Dr. Wallace, of the London Dental Hospital, says: "A perfectly clean tooth will not decay; the decay never begins inside a tooth, but on the outside, and extends inwards; hence the necessity of frequent use of the tooth-brush — after meals,

and always at bedtime." Dr. J. H. Hanning, an American dentist, who is advocating better care of the teeth, states that there is a definite relation between sound teeth and a sound mind, and that in some cases the insane were cured by proper attention to their decayed teeth.

Thrombosis. (See *Varicose Veins*.)

Uric Acidity: This substance, objectionable when *in excess*, is contained, to a large extent, in most animal foods, in the pulses (peas, beans, and lentils), asparagus, mushrooms, and in strong tea or coffee. With much excess of uric acid in the blood, one may suffer from fatigue and also from gout or rheumatism, without suspecting the cause. Much meat-eating, because of its excess of uric acid, may also tend to bring about a sluggish, defective circulation in the brain and the body.

Varicose Veins: This condition is most common about the veins of the leg, in people who have to stand much. Tight garters and constipation may be other causes; but much standing will of itself bring on the condition. The congestion may become so serious as to cause soreness of the skin with ulceration, and even serious hæmorrhage. *Treatment.* — The standing hours must be curtailed. Bathing the leg with salt water or hazeline is useful. Nourish-

ing food, tonics, and avoidance of the cause will improve the health and circulation. If *hæmorrhage* occurs, the patient must lie with the legs raised and supported, and a pad of folded lint or linen should be applied to the bleeding-point, and kept secure by bandaging, and medical advice obtained. *Thrombosis* of the leg veins and *Phlebitis* are mainly due to such conditions, and too much walking should be avoided while the veins are thus inflamed.

Warts are produced by enlargement of the papillæ of the true skin and thickening of the epidermis or outer layer of the skin on the surface. They are largely under the influence of the nervous system and hence often disappear suddenly. Warts can easily be removed by touching them with a glass rod or camel's-hair brush, dipped in glacial acetic acid. If treated night and morning, they will gradually shrivel up and drop off in about a week. Care must be taken not to let the acid (which is a strong caustic) run over the skin.

Whooping-cough: This is a highly infectious complaint common in childhood. One of the dangers is inflammation of the lungs. *Treatment.*—The child must be kept warm, and in severe cases, should remain in bed. Simple nourishing food is essential, and if any lung

complication arises, the application of hot linseed poultices to the chest may be necessary. A simple vaporizer of tar-water kept going in the bedroom will prove useful. A doctor's advice should always be obtained.

Worms: The worms infesting the intestines are mostly the small white threadworms, roundworms, and tapeworms. *Causes.* — Debility, digestive derangement, dietetic errors, all operate as causes of threadworms, whilst the eggs of the roundworm may be swallowed with such uncooked foods as salads or watercress. The tapeworm is often derived from pork or underdone beef (an argument in favor of thorough cooking). Pains, headache, nausea, and disturbance of the bowels are common symptoms. Children who suffer from threadworms do not thrive, and are liable to convulsions. The small white worms often appear in the motions, and there is itching of the nose, disturbed sleep, and various nervous symptoms. The *tapeworm*, which affects the adult more than children, is often shown by the evacuation of small pieces of white segments. A worm powder which contains *santonin*, taken in the early morning fasting, followed in a few hours by a purgative, will generally get rid of roundworms or threadworms; but careful nourishing diet

must follow up this treatment, to strengthen the system. Sugar must be curtailed, and plenty of salt given.

Yellow Fever: This disease is confined to tropical and subtropical climates, and mostly disappears at the first frost in the district. People going from more temperate climates are far more liable than the residents (who have become acclimatized), and must exercise great care, on the first arrival of the epidemic, or leave for colder regions. Pure air as far as possible is absolutely essential, still the utmost precaution against draughts, or taking cold, must be observed. Solid food must not be allowed without a doctor's sanction.

“You cannot charm, interest or please,
By harping on the minor chord disease;
Say you are well, or all is well with you;
Effect of mind on body will make your words come true.”

CHAPTER XV

OUR FOODS, AND THEIR MEDICINAL VALUES

"I am quite sure that in our treatment of diseases one should depend as much on diet and cooking as on the use of drugs." — THOS. DUTTON, M.D.

Curative properties: "Many articles of food," *The Lancet* tells us, "apart from the question of nutrition, possess definite curative properties, and distinct medical actions result from their use." Dr. Alexander Bryce, tells us that "The human body contains the following elements: oxygen, nitrogen, hydrogen, carbon, sulphur, phosphorus, chlorine, iodine, sodium, potassium, calcium, magnesium, and iron; and all these elements must be supplied to the body to provide for growth, and repair of waste."

"*Mineral ingredients, when required by the system, are best taken in their natural state — that is, in their organic form — in our foods. For instance: — Iron is found in apples, prunes, lettuce, figs, potatoes, asparagus, and spinach; Lime in milk, figs, lentils, and cabbage; Phosphorus in peas, beans, rice, and milk. These ingredients when given medicinally in the inor-*

ganic form (as in drugs) are of little service to the system."

Moreover, people differ so much in habits, occupations, and conditions, that no absolute rule can be given as to just what each one should eat, every man being, as it were, "a law unto himself." Still, by knowing the different *food values*, each one may largely judge for himself what will suit him best. It is however, roughly considered that our food should consist of 22 per cent. of protein, 22 per cent. of fat, and the remaining 56 per cent. of carbohydrates.

"*A rational dietary* consists of a certain proportion of these three food elements, fats, carbohydrates (starches and sweets), and protein. We can store up, or can get rid of, an excess of the two former; but not so with an excess of protein, *especially if derived from flesh foods*. While young and vigorous we can eliminate such poisonous products; but after middle age, the machinery weakens and the *excess of protein* leads to an accumulation of poison in the system. This, if continued, is bound to harden the arteries, a process which Metchnikoff tells us is the cause of the undue shortening of life." — Sir HORACE PLUNKETT, F.R.S.

Dr. Hermann Weber tells us that he finds patients suffering from gout, kidney troubles,

uric acidity, and eczema have thought they might eat freely of poultry, game, and fish, if they only avoided beef and mutton. He says this is an error which has caused great aggravation to these troubles; while total abstinence of all flesh foods, and a substitution of vegetables, milk, and foods derived from milk lead to perceptible improvements, or cure of these troubles. This statement will have more force coming, as it does, from one who is not a vegetarian.

Diastase is a ferment capable of converting the starch of foods into "grape sugar," but its power is destroyed if added to food or drink at a temperature above 150° (F.).

Ground Malt is rich in malt sugars, dextrin, and albumen. It is useless to take diastase or malt extracts *after a meal*, as the gastric juice of the stomach would destroy their value. They should therefore be taken with food, if at all.

Acids: All acids except fruit acids have a tendency to annul the solvent action of the saliva; for which reason it is unwise to take vinegar with starchy foods, or to eat lemons or oranges at the same meal with bread, cake, or pastry.

The Fruit Acids.—Malic acid is contained in most fruits, especially in apples (from which it takes its name); citric acid in vinegar, lemons,

and oranges. Both these acids, in fact, are found in most tart fruits, and tartaric acid in grapes. The acid of tomatoes is now known to be citric (not oxalic), hence not objectionable, as had been supposed. Rhubarb, Spinach, and Sorrell contain oxalic acid, and are therefore unsuitable for the rheumatic or gouty.

Apples: The virtues of apples — the king of fruits — for renewing the powers of body and mind, especially in old age, are remarkable. They become converted within the body into alkaline carbonates, and will neutralize acid products of indigestion or gout. When cooked they are more easily digested. Unripe apples are a frequent cause of serious summer complaints, especially among children. In cases of the drink habit a German physician states that, "Eating apples freely at each meal has been tried with great success, the patient gradually losing all desire for alcohol."

Bananas have become a food of great popularity, being, it is said, more valuable, as to nutritive qualities, than the potato. They are much improved in digestibility by being baked, but should be well masticated because of their starch. Ripe bananas contain grape sugar, nitrogenous matter, cellulose, starch, and fat, with phosphoric elements, lime, earth salts,

and some iron. They should never be eaten until properly ripe. The British Medical Congress has confirmed the view that the ripe banana is one of the most perfect of foods, and the ideal nourishment in diabetic complaints. The fruit is ripe when the skin becomes silky — not necessarily black. When it can be mashed easily with a fork, it may be given to convalescents.

Beans and Peas, though very nourishing, contain, *when dried*, an aromatic oil and an alkaloid, which, even in small quantities, are not tolerated by very susceptible stomachs (this statement does not apply to green beans). When dry and old, beans do not soften in boiling, unless long soaked, in cold water, beforehand.

Beef-tea, either home-made or manufactured, is little more than a stimulant; it is a popular error to suppose it to contain much nutriment. This fact has been proved by careful experiment, and is now the accepted view of medical men generally. It is, however, of value as stimulating the appetite; and, with the addition of the white of an egg, or rice, a suitable food is obtained.

Bones contain a nutritive nitrogenous principle,—an excellent basis for soups. They should be well broken up and boiled for many hours.

Bread: New bread is much less digestible than stale, unless very slowly and thoroughly masticated; and those with weak digestion had better avoid it. Toasting bread — thin and crisp — burns out much of the starch and renders it more easily digested, but hot buttered toast is not easy of digestion.

Butter is one of the most easily digested of fatty foods. No less than 98 per cent. of it is assimilated by the body. Newly made dairy butter can be taken freely, uncooked, against chronic constipation, with marked success, especially by elderly or consumptive people; but it should not be taken with, or soon after, animal food. When unsalted butter contains some curd it soon becomes rancid, the curd then quickly becoming stale; the presence of water in butter also causes this change. Cooked butter is apt to disagree. Suspected butter may be tested by spreading a morsel between a fold of thick white paper, and burning it. If the butter is pure the flames will give out only a pleasant odor; but, with a mixture of fats, it will yield something quite different. No acid is more disagreeable or harmful to the stomach than butyric acid, from rancid butter; but when such is found to disagree, relief may be obtained by taking, immediately, a teaspoonful of lemon

juice or vinegar. Unsalted butter may be further preserved by excluding the air from it. Completely immersing it in cold water, *which should be changed daily*, will keep it sweet for a week or more.

Carrots are a specially wholesome vegetable. The water in which they have been boiled is a powerful diuretic, and is much used for any derangement of the urinary organs. The usual dose is a large cupful morning and evening, while fasting. It is efficacious when there is a red deposit in the urine.

Celery, when uncooked, is among the most indigestible of vegetables; but when boiled or stewed, or used in soups, it is easy of digestion, and is reputed to be useful in cases of rheumatism and gout, being a purifier of the blood.

Cheese, comprising the curd and fat of milk, contains much nourishment and furnishes heat and energy. Its chief drawback is the great difficulty many people find in digesting it. To promote its digestion it should be thoroughly masticated, or else grated. The bad character which it has to bear is largely owing to the way in which it is eaten hurriedly, and at the end of a hearty meal.

Dutch Cheese is more digestible, being less apt to develop butyric acids in the stomach.

As to nutrition, one pound of cheese is reputed to be equal to three pounds of beef.

Coffee has an invigorating and sustaining power. Neither tea nor coffee supply materials for restoring waste, still they diminish or retard waste of tissue. Their action is twofold, both soothing and exciting, paradoxical as this may seem. Neither should be taken strong.

Cream is one of the most easily digested fats, and also contains as much protein and sugar as milk itself. Cream is quite irreplaceable, in many chronic diseases, by any other article of food whatever.

Eggs are considered a typical example of food, containing all the different principles essential to development. The white is almost pure albumen, and the yolk consists largely of nitrogenous matter. They may be fairly well preserved for many weeks by simply coating the shell with anything that will effectually exclude the air. This may be done by slightly rubbing the shell over with butter or oil, or by coating them with a solution of bees' wax — one-third bees' wax to two-thirds olive oil. The yolk of an egg is unsuitable for gouty persons who are disposed to the fermentative formation of uric acid. A hen's egg is nearly equal to 2 oz. of lean meat. Eggs are more

easily digested raw or very lightly boiled; they should never be hard boiled. The white is more easily digested than the yolk.

The late Sir J. W. Simpson of Edinboro', the noted expert, restricted some delicate patients, for weeks and months, almost entirely to the raw white of eggs, beaten up, which proved of great benefit. Persons suffering from uric acid diathesis have the advantage of such a diet, being almost free from purins. Eggs more than five days old undergo a change which unfits them for invalids or young children.

Fats: The fat of bacon, particularly when cold boiled, digests more readily than other fats because of its being loose and granular; and it therefore agrees with those with weak digestion.

Figs, as is commonly known, are admirable laxatives, taken best when cooked. They contain much sugar and a large proportion of nitrogenous matters, so that they afford more nourishment than most fruits.

Fish: The white and less oily varieties (such as the sole, plaice, and whiting) are far more digestible than the oily kinds, such as cod, haddock, salmon, mackerel, and herring. Fish is better fried in olive oil than in butter or lard.

Fruits: The most nourishing fruits are figs,

grapes, raisins, dates, and bananas. *Drupaceous* (or *Stone Fruits*) — peaches, apricots, plums, cherries, etc., are not considered as wholesome as the *Pomaceous* (or seed fruits) — apples, pears, etc. Fruits contain little actual nutrition, but they have an important value in other respects. The vegetable salts which they contain are certainly advantageous, and they possess important anti-scorbutic qualities. The various kinds of fruit contain an average of about 80 per cent. of water and about 5 to 10 per cent. of sugar and dextrin.

Gelatin (or isinglass) is the dried air-bladder of the sturgeon. It contains but very little nutriment, and is almost useless for support. It is therefore a mistake to give it to invalids, as is often done, with a view of nourishment.

Grapes: The juice of the ripe grape contains much bitartrate of potash, and a little malic acid. Grapes are undoubtedly one of the most wholesome of fruits, and may be safely eaten by invalids. They have a diuretic and slightly laxative action.

Fresh Grape Juice is now highly commended as a capital substitute for wine and spirits. It contains all the nutritive inorganic salts which are to be found in choice wines; such as the salts of iron, malic acid, phosphorus, phos-

phates, and most particularly lecithin, which so successfully prevents general decay of the bodily organs.

Honey is very nutritious, and agrees, better than sugar, with children and aged persons, and when clarified at the fire it is said to be good for rheumatism, especially during the winter. Honey is a special nutrient when one is chilly and has, in any way, lost body-heat; such must have fuel for combustion, and that fuel should be capable of immediate absorption. Bee honey, which is grape-sugar, fulfils that condition; whereas cane-sugar and beet-sugar have first to undergo "inversion." Two tablespoonfuls of bee honey in a tumblerful of hot water soon restores a starved or freezing person. *Honey Tea*, made by dissolving a tablespoonful of honey in a teacupful of hot water, is highly recommended for general use.

Horseradish is mostly used as a condiment; but, if slowly chewed, it will often relieve hoarseness.

Leeks have long been famous as a most valuable vegetable. They are now recognized as a preventative of skin diseases. Pliny states that they were, even in his time, held to be efficacious in keeping the voice in its full natural tones.

Lemons, on account of their salicylic acid,

are decidedly healthful, especially in cases of rheumatism and gout. The juice of half a lemon taken in a tumblerful of hot water in the morning on rising, and again at bedtime, will be found beneficial, especially for those who need a gentle laxative.

Macaroni, **Vermicelli**, and **Semolina** are all made from wheat and are rich in gluten. When well cooked they are easy of digestion and highly nutritious, and contain only about 20 per cent. of starch. *Macaroni* is highly recommended by Sir Henry Thompson, M.D., as a very nutritive and easily digested food, being chiefly gluten, the starch having been largely removed in the manufacture. He regards it as quite equal to meat as a flesh-former, and an excellent substitute for it.

Milk contains all the alimentary substances necessary for the support of animal life, and is therefore termed a complete food. It requires more care in its selection and treatment than almost any other article of diet. Fresh milk, if thoroughly reliable, is preferable to condensed milk, especially for children. Milk, though an ideal food for infants and growing children, is generally unsuitable as a regular diet for adults. Dr. Harlow Davis has stated that he has not found more than seven out of every hundred

adults who could drink milk regularly, as a main part of their daily food, without incurring some physical derangement, generally through congestion of the liver and kidneys. Milk is not strictly a liquid food, as it soon curdles in the stomach. It is made more free from this tendency, and more digestible, for young or old, by the addition of one-fourth the quantity of soda water, hot water, or barley water. Milk is very nourishing when unboiled, but if the purity is uncertain it is best to scald it; but this must be restricted to merely bringing it to the temperature of about 150° F. and keeping it at that temperature for about a quarter of an hour. Boiled milk, it is stated, when given regularly to infants has caused a kind of scurvy; it is also constipating, and, with black pepper added, is a good remedy for simple diarrhoea.

Buttermilk is far more digestible than milk, and the German physicians tell us that buttermilk suits some patients better than new milk. Niemeyer says, "When the patient is hungry, let him drink buttermilk, and when he is thirsty, let him likewise drink it; because its curd is so finely divided that it remains liquid in the stomach instead of forming lumps as does new milk." It is highly recommended for indigestion and

the first stages of consumption. It is also credited with being a great promoter of health and longevity, among those who use it freely.

Skimmed Milk contains a larger proportion of casein and but little fat, but it is a cheap and ordinary article of food when supplemented with carbohydrates (in which it is deficient), such as potatoes and bread. It suits those suffering from kidney troubles better than unskimmed milk or cream.

“*Soured Milk.*”—Prof. Metchnikoff, the great Paris savant, tells us that the active *Living bacilli*, engendered by feeding on the “Bulgarian Soured Milk” (though quite harmless to the human body), dominate within the colon, and are *destructive to the noxious germs* which produce putrefaction therein: thus the net result will be that the process of self-poisoning by the putrefactive mischief becomes prevented, and the hardening of the arteries retarded. It is thus really a food-medicine.

Nettle-tea: The nettle, which is generally considered an objectionable weed, is capable of much good medicinally, especially in the spring. Nettle-tops, made into a tea, are said to consume the phlegmatic superfluities which the winter leaves behind.

Nuts contain much easily digested protein,

but they contain tough fiber, chiefly in the skins; if this is removed, and when carefully and completely masticated, they are highly nutritious. Nuts are reputed to lessen the hardening of the arteries, but they must be in the form of nut flour, for the aged, if teeth are defective. *Nut Butter* is equal in nutritive value to Dairy butter by reason of its containing proteid, as well as fat; it may be compared to cream rather than to dairy butter, though less digestible.

Oatmeal: This contains a considerable amount of phosphates, essential in cereal food. *Oatmeal porridge*, as it is sometimes cooked, is objectionable, because of its sloppy nature, which tends to "bolting." Sir Henry Thompson, M.D., tells us that porridge — for this reason — does not have a chance of proper treatment. It should be cooked for at least two hours the day beforehand, and masticated with a crust or cracker, without which it is difficult to promote the necessary insalivation; unless well cooked it may cause skin trouble.

Olive Oil: When pure, this oil has no objectionable taste or smell, and is an excellent substitute for butter. Its tendency is to prevent intestinal putrefaction. A favorite Spanish maxim says, "Be a miser with your vinegar, a councilor with your salt, and a spendthrift

with your oil." Olive oil is sometimes adulterated with cotton-seed oil, and great care is necessary in obtaining the pure article.

Onions, boiled or stewed, and served without sauce, will help to promote sleep if taken as a light supper. They are very nutritious, and possess an acrid, volatile oil, to which their peculiar odor and flavor is due; but by long boiling this may be dispelled. The onion is perhaps the most valuable of root vegetables, not only from the dietetic but the medicinal point of view. It is probably owing to its volatile oil that the onion is such a *redoubtable foe to disease germs*.

Oranges: These are one of the most popular and useful fruits. They are valuable as anti-scorbutics. There is no fruit more useful in cases of sickness, both for young and old.

Oysters are nutritive for invalids when eaten raw; warm milk taken with them aids their digestion, but vinegar serves to partly dissolve their albuminous substance, rendering them much less digestible.

Pineapples: This valuable fruit possesses an active principle which closely resembles animal pepsin as a digestive ferment, and which can assist the gastric juice, when this fails, for dissolving the food proteins into chyme. They

are the very best fruit for persons liable to dyspeptic sore throat. The ferment "bromelin," found in fresh pineapple juice, not only helps to digest the albumin of meats, and of casein, but it will also soften and disperse the tough membrane which forms on the back of the throat of a patient suffering from diphtheria, and will sometimes disperse it.

Plasmon is mainly a concentrated form of milk, highly nutritious and digestible.

Potatoes: These (like most other tubers) contain very little proteid, or actual fat. Yet they contain salts of potash, valuable articles of sustenance. They are therefore very beneficial as preventatives of scurvy; they are better steamed than boiled, as the boiling partly dissolves away these useful mineral ingredients. They contain only 18% of starch and are sometimes allowed in moderation for diabetic patients. *The Lancet* states that "The potato, by virtue of the minute quantity it contains of what is known as solanine, may be a remedy for neuralgia and headache and an excellent sedative, more efficacious in long-standing neuralgia, especially in cases of neuritis, than any antipyrin." They are best cooked in their skins.

Proteid is the most important of all food principles, and there is no life without it. About

four ounces should be supplied daily in the food of the average man. It fulfils the main functions of food — the building up of the tissues, and as the source of heat and energy. It is therefore *pre-eminent* (which is the meaning of the word). It is largely obtained from bread, lean meat, eggs, milk, nuts, and the legumes (peas, beans, and lentils).

Rhubarb is cooling, with a laxative tendency; it is found objectionable at times, owing to the vegetable acids which it contains, and the large amount of sugar required to sweeten it.

Rice, though consisting largely of starch, is not fattening, and may be used in cases of obesity instead of too much bread. In this way a sufficient supply of albumens is obtained with a very little fat and a reduced quantity of starch.

Sage: It is agreed by physicians that this herb strengthens the nerves and the animal powers.

Salt: Where there is a tendency to eczema, it is increased by the use of much salt. *Too much* salt is said to increase the blood pressure and the development of arterio-sclerosis (hardening of the arteries). Its use, in moderation, tends to increase the secretion of saliva.

Sago, Tapioca, and Arrowroot are prepared

from roots and are nearly all pure starch. Arrowroot is specially easy of digestion and well suited for convalescents.

Spices have no nutritive value and they are said to be productive of catarrh of the throat, by their tendency to local irritations.

Spinach contains much iron and has a character analogous to rhubarb, but it is more wholesome. It has a slight laxative tendency, but can be eaten in moderation, by most persons, with benefit.

Sugar conduces to the production of fat: it also contributes to the general sustenance, and is capable of increasing the resistance to fatigue; but in some cases it passes into acid fermentation, causing indigestion, acidity, and flatulence. Many people of weak digestion therefore have to do without sugar, and foods containing it. It seems to be more harmful when taken with starchy foods or with flesh foods. Sugar has had a bad name as causing Rheumatism, Gout, and Eczema; but with fresh vegetables, and without meat, at the same meal, it is much less harmful. A way of partially preventing its fermentation is by taking care that it shall be thoroughly insalivated within the mouth. For persons who are disposed to gouty fermentation, all sweet food, sugar, and confectionery are

apt to sour the stomach. When it can be properly digested, sugar is an invaluable food, especially for the aged.

Tea: "The cup that cheers but not inebriates." There is no doubt that if tea be taken in excess it is injurious, and some find they can scarcely take tea at all without injuriously affecting their nerves. Allowing tea to *brew* for a considerable time extracts the injurious "Tannin," whereas tea made by *infusing* the leaf for only two or three minutes is invigorating, and if taken in moderation, is often beneficial, especially after much fatigue.

Toast-water is specifically antiseptic in fever cases. Thin slices should be toasted slowly all through, but without actually burning; then cold, boiling water should be poured over it, and when this is cool it should be strained through muslin.

Vegetables (Greens) are mostly cellulose (or fibrous matter) with little nourishment, but are useful for their potash salts which keep the blood alkaline, and are therefore specially suited to persons with a tendency to gout or skin affections, and also in cases of constipation. Such vegetables lose more of their useful salts in boiling than in steaming. They must always be thoroughly cooked; if seeming to require

chewing, it denotes that they are stale or underdone and not easily digested; the addition of pepper will then help to make them more digestible. All greens should be cut on the day they are to be used, as stale greens are not easy of digestion.

Turnip Tops, or the young leaves of turnips, if used as greens, though pungent, are very purifying to the blood, because of their potash and other mineral salts. Dr. Luff, in his treatise on "Gout and Rheumatism," sums up in favor of turnip tops in preference to other greens.

Vegetarianism, whatever its other merits may be, has done much good by calling attention to many essentials of diet, and to improved methods of cooking non-flesh foods. It has also taught many, who are not inclined to adopt the diet in full, that eating an excess of meat, as a habit, is responsible for many illnesses.

Water Drinking to excess, or beyond what the natural thirst calls for, or drinking just before or during a meal is a mistake, as it tends to dilute the gastric juice. One or two hours *after a meal* is the most suitable time, and those with weak digestion will be surprised at the great benefit they will immediately derive by adopting such a course.

Whey is a gentle laxative; a breakfast cup

of it, taken each night and morning, will tend to relieve constipation. It is easily prepared by boiling milk (or skim milk) with lemon juice (two tablespoonfuls to a quart) and straining away the curd.

If those who prepare our food possessed a better knowledge of the "chemistry of the kitchen," and if we could learn to eat slowly, we should hear far less of the dread complaint Dyspepsia; or as Rockefeller puts it, "The demon Indigestion would be compassed round about and his slaughter be complete."

"Now all ye dames and maidens fair, who cherish high
ambition

And nobly strive to do your share to better man's
condition,

If only you could realise the intimate connection

'Twixt food and fate, you'd give us soon, our food more
near perfection."

CHAPTER XVI

MEDICAL GLOSSARY

ABDOMEN — The trunk below the chest, separated by the diaphragm.

ABSORBENTS — Lymphatic and lacteals: minute vessels forming a network in all parts of the body, which take up fluids from the tissues.

ACUTE — A disease developing rapidly, and running a short course.

ADIPOSE MATTER — Fatty tissues.

ALBUMEN — One of the chief constituents of the animal body, *e.g.* the white of egg is clearly a pure albumen; also the clot of new milk.

ALIMENTARY CANAL — The mouth, gullet, stomach, and intestines.

ALKALIES — Substances which neutralize acids.

ANÆSTHETICS — Substances which produce loss of sensation or consciousness, *e.g.* chloroform, ether.

ANODYNES — Substances which have a soothing or soporific effect upon the human body, *e.g.* opium, belladonna, henbane, hemlock.

ANTIDOTE — A remedy to counteract poison, or preserve against injury.

ANTISEPTIC — Possessing a destructive effect on such micro-organisms as cause disease, *e.g.* carbolic acid, eucalyptus, borax.

ANTITOXINS — Opposed to poisons: applied to serum injections.

APERIENTS — Medicines which act as laxatives or purgatives.

APOPLEXY — Paralysis from rupture of a cerebral vessel.

APPENDICITIS — Inflammation of the vermiform appendix.

AROMATICS — Medicinal substances employed as carminatives and antispasmodics, *e.g.* cloves, peppermint, cinnamon.

ARTERITIS — Inflammation of the arteries.

ARTHRITIS — Inflammation of the joints.

ASEPTIC — Free from bacteria, or microbes.

ASPHYXIA — Suspended animation.

ASSIMILATION — The process by which the tissues take up and incorporate nutriment from the digestive canal.

ASTRINGENTS — Substances which cause contraction of the tissues.

ATAVISM — The tendency in offspring to resemble the ancestral type.

ATROPHY, OR WASTING — Caused through some deficiency of the nerve-force supplying the part affected.

- AURICLE — Organ of heart, pumps venous blood into right ventricle.
- BACILLUS — A microscopic organism which has the power of engendering disease rapidly within the body or blood.
- BACTERIA — Micro-organisms which, when they find an entrance into the circulation, produce disease.
- BILE — The secretion of the liver, which aids in the digestion of the fatty portions of the food, and acts as a laxative.
- BORAX — A compound of boracic acid and soda, an antiseptic.
- BRONCHITIS — An inflamed condition of the bronchial tubes.
- CALORIES — Energies yielded by food, for force, warmth, and fat.
- CARBUNCLE — A large, aggravated, and virulent form of boil.
- CARBOHYDRATES — Foods which maintain heat and produce energy, *e.g.* sugar, and all starchy foods.
- CARDIAC — Pertaining to the heart.
- CARMINATIVES — Medicines which are cordial, and which alleviate flatulence, *e.g.* peppermint, cinnamon, ginger, cloves, cajuput.
- CATALEPSY OR TRANCE — A condition of unconsciousness in which the muscles are rigid, and the person remains in one fixed position.
- CATARACT — Opaqueness of the lens of the eye, causing blindness.
- CELLULOSE — Fibrous matter in foods, especially in greens.
- CEREALS — The usual grain foods, *e.g.* rice, wheat, oats, maize.
- CEREBELLUM, OR LITTLE BRAIN — The lower and posterior division of the brain which supplies controlling power over the muscles.
- CEREBRAL — Relating to the brain.
- CHRONIC — Diseases of long duration.
- CHYLE — Milky fluid, formed in stomach, and separated from the chyme.
- CHYME — A pap produced in the stomach by the digestion of food.
- CICATRIX — A scar left after a wound.
- COMA — A state of insensibility, through stupor of the brain.
- CONCUSSION — A shock or injury to some part, inflicted by violence.
- CONGESTION — An overloaded condition of blood-vessels in any part.
- CONTAGION — The contracting of a disease by contact with a patient.
- CRANIUM — The skull, or the bony cavity containing the brain.
- CUTANEOUS — Pertaining to the skin.
- CUTICLE — The external layer of the skin.
- CYST — A tumor containing fluid, or part fluid.
- DETERGENTS — Fluids used for cleansing wounds and ulcers.
- DIAGNOSIS — The art of recognizing the nature of a disease.
- DIAPHORETICS — Medicines which promote perspiration.
- DIATASE — A ferment made from bran, which helps to convert starchy foods into grape sugar.
- DIPSOMANIA — An inveterate craving for stimulants, or alcohol.

- DIURETICS** — Medicines acting on the secreting power of the kidneys.
- EMETICS** — Substances which induce vomiting.
- ENDEMIC** — Term applied to diseases among small numbers of persons, or in a limited area — generally due to local cause.
- EPIDEMIC** — A disease spread over a wide area, and involving many persons.
- EPIDERMIS** — The outer or scarf skin, or cuticle.
- ERUCTION** — The result of indigestion, accumulations of gas generated in the stomach and emitted through the mouth, belching.
- EXCRETION** — Waste thrown out from the body or the blood.
- EXPECTORANTS** — A class of remedies which enable the air tubes to throw off secretions from their lining mucous membrane.
- FLATULENCE** — Popularly termed wind on the stomach; a collection of gas generated in the stomach, the result of imperfect digestion.
- FOMENTATION** — A method of applying moist heat to any part.
- FONTANELLES** — The gape between the bones of an infant's skull.
- GASTRIC JUICE** — The acid secretion within the stomach.
- GASTRITIS** — Inflammation of the stomach.
- GLANDS** — The bodies which filter the fluids of the human system, and thus keep the blood pure.
- GLOTTIS** — The opening into the larynx, or windpipe.
- GLUCOSE** — Grape sugar, or sugar of fruit.
- GULLET, OR ESOPHAGUS** — The tube leading from mouth to stomach.
- HAZELINE** — A fluid distilled from the fresh twigs of the Witch-hazel.
- HYGIENE** — The branch of science devoted to the preservation of Health, personal and public.
- HYDROCARBONS** — Foods which maintain heat, and produce energy, *e.g.* starch, sugar, butter, fat.
- HYDROCEPHALUS** — Water on the brain, causing enlargement of head.
- HYPODERMIC** — Term used when medicines are injected under the skin.
- INFECTION** — A term applied to the contraction of disease through the breath or the excretions. Contradistinct from Contagion.
- INHALATION** — A means of introducing medicated air into the lungs.
- INSPIRATION** — That action of the lungs by which air is inhaled.
- INTERMITTENT** — The term applied to diseases which come on in paroxysms and subside during the intervals.
- JUGULAR VEINS** — Large veins in the neck, which convey the blood from the head and face back to the heart.
- LARYNX** — The organ or aperture which contains the vocal chords, situated at the upper portion of the windpipe.
- LARYNGITIS** — Inflammation of the lining membrane of the larynx.

- LAXATIVE** — A term applied to medicines which are mild purgatives.
- LIGAMENTS** — Dense fibrous non-elastic bands which bind the bones together, and retain them in position.
- MALIGNANT** — The term applied to certain dangerous diseases which increase rapidly, or proceed to a fatal end, such as cancer.
- MEMBRANE** — A thin tissue which lines the various cavities of the body, *e.g.* the mucous membrane which lines the air passages.
- MENINGITIS** — Inflammation of the membranes of the brain.
- METABOLISM** — The continued waste and repair in the system.
- MICROBES** — Microscopic objects which possess the power, when introduced into the human system, of multiplying to an incredible extent, especially in vitiated air.
- MIGRAINE** — Sick headache, usually periodical, from repeated errors in diet.
- MUCOUS MEMBRANE** — The membranes which line the air passages, the alimentary canal, and the various internal organs.
- MUSCLES** — The contractile bundles of tissue, by means of which the movements of the limbs of the body are effected.
- NARCOTICS** — Medicines which are sedative, and stupefy — employed for relief of pain, or to produce sleep, *e.g.* opium, morphia.
- NEURASTHENIA** — Nervous exhaustion, or breakdown.
- PALATE** — The *hard palate*, that portion of the mouth which is arched by bone and continuous with the *soft palate*.
- PARALYSIS** — Loss or cessation of the power of voluntary motion.
- PARASITE** — A living thing which lives on another, causing disease.
- PAROXYSM** — A periodical aggravation of certain symptoms in diseases.
- PEPSINE** — A ferment contained in the digestive juice of the stomach.
- PERISTALTIC** — Contractions of the intestines in moving contents on.
- PHARYNX** — That part of the air passages which is continuous from the throat to the upper part of the windpipe.
- PHTHISIS** — Consumption; tubercular disease.
- PLEURA** — The membrane which lines the inner surface of the chest walls, and covers the lungs within their cavity.
- PLEURISY** — Inflammation of the pleura.
- PNEUMONIA** — Inflammation of the lungs.
- PROTEID** — The nitrogenous building material of foods, forming tissues.
- PULMONARY** — Relating to the lungs.
- PURGATIVES** — Medicines which produce free action of the bowels.
- RENAL** — Pertaining to the kidneys.
- RESPIRATION** — The act of breathing (16 to 20 times per minute).
- RIGOR** — A sudden shivering, indicating an attack of fever.
- SALIVA** — The spittle within the mouth, for first step in digestion.

- SCROFULOUS OR STRUMOUS** — An impure condition of the blood — constitutional.
- SEDATIVES** — Medicines which restrain the activity of the various functions by lessening their nervous supplies, thus soothing pain.
- SEPTIC** — Anything that causes putrefaction.
- SERUM** — The watery portion of the blood.
- SPASMODIC DISEASES** — Involuntary contractions of the various muscles, *e.g.* St. Vitus' Dance, Lockjaw, Epilepsy.
- SPINE** — The column of twenty-four vertical vertebræ, or small bones.
- SUPPURATION** — The formation of pus by the living tissues.
- TENDONS** — The strong fibrous bands by which the muscular ends are attached to the bones, popularly termed "leaders."
- THORAX** — The cavity or upper part of the chest.
- TONICS** — Medicines for promoting nervous tone, strength, or appetite.
- TONSILS** — Glands situated at each side of the throat, enclosed in the pillars of the fauces, or soft palate.
- TOXINS** — Poisons set up in the bowels by bacteria, aided by constipation.
- TUBERCULAR** — Affected with "Tuberculosis," an infectious disease.
- URIC ACID** — Lithic Acid, present in excess in Gout and Rheumatism.
- UVULA** — The tongue-like extension which is suspended from the upper portion of the soft palate, and hanging down between the tonsils.
- VEINS** — The vessels conveying the dark blood from the arteries back to the heart for renewed circulation through the lungs.
- VENTRICLE (RIGHT)** — Chief organ of the heart for circulating venous blood to the lungs.
- VENTRICLE (LEFT)** — Organ of the heart circulating arterial blood.
- VERMICIDE, OR VERMIFUGE** — A drug used to expel worms.
- VIRUS** — Matter capable of spreading disease, if introduced into the system.
- VISCERA** — The contents of the abdomen and thorax.
- VOLATILE** — Substances that quickly evaporate.
- WINDPIPE, OR TRACHEA** — That portion of the air passage extending from the glottis, behind the throat, to the bifurcation of bronchial tubes.
- ZYMOTIC** — A term applied to diseases due to specific viruses, *e.g.* scarlet fever, measles, diphtheria.

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